

**Employers' Implicit Theories of Intelligence in the  
Recruitment of Individuals with Asperger's  
Syndrome**

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**Declaration**

I hereby certify that the material, which I now submit for assessment on the programmes of study leading to the award of a Master of Science (Research) is entirely my own work and has not been taken from the work of others except to the extent that such work has been cited and acknowledged within the text of my own work. No portion of the work contained in this thesis has been submitted in support of an application for another degree or qualification to this or any other institution.

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*Dedicated to my parents, for their love, patience and understanding*

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## Abstract

Implicit theories are the informal theories used in the organisation and interpretation of information. Implicit theories' role in recruitment has yet to be determined. Such research could be valuable to individuals with Asperger's Syndrome (A.S.), as they often have exceptional cognitive abilities, but also social deficits. Emotional intelligence (E.I.), which is valued by employers contains social factors like interpersonal skills. Many individuals with A.S. have third-level degrees, but often find it difficult to obtain employment. The methodology employed was a mixed-methods design. Initially, Case Studies were carried out with individuals who have experience with A.S. in the workplace (n=4). This study investigated the effects of A.S. in recruitment and workplace, and a lack of employer knowledge. Next, employers (n=29) were then asked to describe candidate characteristics, and rank an A.S. and a neurotypical (without autism) candidate in intelligence and employability. There was no relationship between: cognitive characteristics and employability, perceived intelligence; and social characteristics and employability, perceived intelligence. Finally, employers' implicit theories of intelligence were investigated using Sternberg's Implicit Theories of Intelligence Inventory and an E.I. Inventory. These were compared with ratings of an A.S. candidate's perceived intelligence and employability. There was no relationship between employers' implicit theory of intelligence and (a) employability, (b) perceived intelligence. An A.S. description was distributed in two conditions to investigate its effect on recruitment selection. The findings indicate that Candidate descriptions which disclosed the syndrome were considered more employable than those who did not confirm the syndrome. No difference was found between conditions with regard to intelligence. Implicit theories of cognitive and social intelligence are not the prominent assessor of a candidate's employability and intelligence. A.S. candidates should confirm their condition with employers as it appears to increase employability.

## **Chapter 1:**

### **Introduction**

### **1.1 Overview**

The nature and definition of intelligence is a much debated topic among psychologists and also among laypeople. Intelligence theories can include any combination of skills including judgement, comprehension, reasoning, interpersonal skills, musical ability, and motor co-ordination. An implicit theory of intelligence is an informal theory used in the organisation and interpretation of information. Any definition of intelligence can influence an implicit theory; therefore, an individual's theory may differ from one person to another. Assessments of intelligence occur in everyday social interactions, and can also be used in the recruitment process. However, the role of implicit theories of intelligence in these interactions has yet to be determined. Such research could be valuable to individuals with Asperger's Syndrome (A.S.), as they often have exceptional cognitive abilities such as exceptional rote memory innovative skills, but social deficits like difficulties in reciprocating social interactions and interpreting interpersonal and intrapersonal feelings are often present. Emotional Intelligence (E.I.), which is increasingly valued by employers, contains social factors like interpersonal skills. Many individuals with A.S. have third-level degrees but can find it difficult to obtain and maintain employment, often citing social rules and customs of the workplace too difficult to adapt to.

### **1.2 Implicit and Explicit Theories of Intelligence**

Implicit theories are the informal theories used by individuals, from laypeople to psychologists. Implicit theories of intelligence can be used in the assessments of intelligence. For example, Microsoft's chairman Bill Gates used his own theory of intelligence to describe the type of employees he wanted to work for him. His model favours "intelligence or smartness" in pure science over experience (Stross, 1996). There are also a vast number of explicit theories of intelligence, those that have been developed by psychologists or scientists based on the information obtained from performance in intelligence tests. Some of these explicit theories could conflict with Bill Gates' theory of intelligence, and indeed conflict with each other.

Cognitive and emotional intelligences are examples of conflicting explicit theories of intelligence. Cognitive theorists include Sternberg (1985) and Gardner (1983, 1999), amongst others. Cognitive intelligence refers to the type of intelligence that is measured on an Intelligence Quotient (IQ) test, and is typically a 'traditional view' of

intelligence. Gardner (1983, 1999) also refers to social or emotional aspects of intelligence. Emotional theories of intelligence were conceptualised by Salovey and Mayer (Mayer & Salovey, 1993, 1995; Salovey & Mayer, 1990) and popularised by Goleman (1995). It seems that emotional intelligence is becoming more important to employers than academic success (Daly, 2008).

### **1.3 An Introduction to Asperger's Syndrome**

The increasing importance of emotional intelligence in the workplace is not encouraging for the estimated 10,000 individuals with A.S. in Ireland (National Disability Authority, 2003). For the purpose of this study, the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV-TR) (American Psychiatric Association, 2000) definition of A. S. will be used. This refers to an impairment in social interaction including eye-contact, facial expression and a failure to develop peer relationships, and restricted or repetitive and stereotyped patterns of behaviour, interests and activities like an inflexible adherence to specific, non-functional routines or rituals.

The severity of these characteristics can differ greatly in every individual with A.S. Studies concerning adults with A.S. or High Functioning Autism (H.F.A.) have been negative for the most part. Few were married, had received third level education, were in employment, or had meaningful friendships (Engstrom, Ekstrom & Emilsson, 2003; Howlin, 2000; Howlin, Goode, Hutton & Rutter, 2004; Tsatsanis, 2003). The deficits in the social interactions of individuals with A.S. are quite often paired with an exceptional cognitive ability. However, individuals with A.S. are often average students or even perform poorly academically unless a topic captures their imagination (Gregory, 1987). Hans Asperger was one of the first to describe this 'autistic psychopathy', which was later renamed 'Asperger's Syndrome' by Wing (1981) after its pioneer. Asperger (1944) studied children who not only atypically eased through the progression from mechanical learning to original thought, they did so by forming their own strategies because they either could not or did not follow those used by their teachers. Fitzgerald (2005) also suggested that there are many advantageous byproducts of A.S. He proposed that writers such as Jonathan Swift, William Butler Yeats and George Orwell were likely to have had A.S., and were talented in a different way to neurotypicals (people without autism), with distinctive

perspectives and a higher verbal IQ. Similarly he adds that musicians such as Mozart greatly benefitted from his apparent A.S. which afforded him a remarkable memory capacity.

#### **1.4 Asperger's Syndrome in the Media**

Individuals with A.S. who work on their strengths, and simply accept that they are not social beings tend to be proud of their diagnosis, and happily function in day to day life (Schneider, 1999). The interesting ways in which individuals with A.S. function socially are becoming increasingly more apparent in the media. For example, the multi-award winning novel "The Curious Incident of the Dog in the Night-time" (Haddon, 2003) is written from the perspective of a 15 year old boy with A.S. The book gives an accurate insight into life with A.S. In keeping with A.S. the story unfolds in a somewhat unconventional manner, diverting into tangents which are irrelevant to the plot but reflect the narrator's special interest in mathematics, unusual aversion to the colour yellow and other unrelated topics. The reality TV show "America's Next Top Model" (Banks, Mok & Soiseth, 2007) featured a contestant named Heather who had A.S. Heather competed with 12 other budding models in weekly challenges and photo shoots with the aim of winning a modeling contract where she eventually finished in fifth place. While Heather's "awkward" look was praised by the judges as unique and fashionable, the other contestants mocked her physical and social awkwardness.

The example of A.S. in the media which is most relevant to this study is the recent addition of a character with A.S. to the cast of the American medical drama "Grey's Anatomy" (Rhimes, 2008). A highly skilled heart surgeon, "Dr. Virginia Dixon" joined the team at the fictional hospital, where she does not initially reveal her condition. However, it becomes apparent to all of her colleagues quickly, as her symptoms and behaviours embody all of the diagnostic criteria. She found it very difficult to fit in with her colleagues and they found her very difficult to work with. For example, she required rigid working conditions which her colleagues found difficult to accommodate and adjust to. While the episodes addressed current issues facing those with A.S., the condition was portrayed inaccurately as the character seemed to exhibit a very extreme and exaggerated form of A.S. For example, the character's lack of empathy is depicted in a scene where a young woman has died. Dr.

Dixon appears cold and heartless as she suggests “harvesting her organs” to the family. According to the diagnostic criteria, Dr. Dixon may not have been able to understand the feelings of the family but it can be presumed that after her years of study and training to become a doctor she would have developed a technique to recognise and control her responses to these sort of emotional occurrences. Inaccuracies about A.S. and other disabilities may contribute to the negative stereotypes associated with disabilities which can negatively affect the opportunities available to them.

### **1.5 Asperger’s Syndrome in the Workplace**

With regard to employment, a study by Minskoff, Sautter, Hoffman and Hawks (1987) found that one third of employers across nine industries indicated that they would not knowingly hire an applicant with a learning disability. Barnes (1991) describes a disability as the loss of opportunity to participate in the community equally due to physical and social barriers. In recent history the labour market has transformed to include more women, ethnic minorities and people with a disability in the workforce than ever before. However, overall there is not full equality across gender, race and abilities despite the introduction of legislation to enhance and protect rights (Arnold, Silvester, Patterson, Robertson, Cooper & Burnes, 2005).

Employment gives individuals many opportunities, aside from the obvious financial incentive associated with it. Cascio and Aguinis (2005) state that employment allows individuals to grow and develop skills and express themselves through the creation of solutions to emerging problems. It also empowers people, through making decisions and directing their lives and gives an opportunity to communicate, connect with others through group and team collaboration.

Similarly, Maslow’s Hierarchy of Needs (1943) suggested that there are five levels of need which motivate individuals, beginning with basic and instinctive needs such as the physiological need for shelter, survival, and food, and the need for protection and security. Once a need is satisfied, the next level becomes the individual’s main motivator. Following the basic instinctive needs, social and civilisational needs become the prime motivator. These include the need to belong and for association and acceptance by others. The need for esteem follows social and civilisational needs.

Esteem needs refers to one's need for recognition, authority and influence, and also one's desire for self-esteem and self-confidence. Once this need is satisfied, one seeks for self-actualisation- the need for self-fulfilment, self-realisation, personal development and fulfilment of creative abilities. Due to the social deficits associated with A.S., the social level of Maslow's Hierarchy of Needs (1943) may not apply to these individuals. Nonetheless, there are many individuals with A.S. seeking employment regardless of their motivations, but they can struggle to find positions to match their qualifications and expertise. People with A.S. are capable of obtaining third-level degrees however when seeking employment, many struggle to perform well in job interviews and many those who progress into employment often find the social requirements to be overwhelming and do not perform adequately (Berney, 2004).

The current economic climate has resulted in a large pool of highly qualified individuals which has resulted in greater competition in the labour market (FÁS, 2009). Aside from job descriptions and person specifications, it can be very difficult for even a neurotypical job candidate to know what an employer is looking for. An employer could have a similar implicit theory of intelligence to Bill Gates' "smartness over experience" theory, with additional employers having conflicting theories also. Employers' conceptions of intelligence could provide a lot of information for jobseekers, and more importantly for those with A.S., given current negative disability stereotypes coupled with recent increased competition for jobs. Therefore, the main research question of this study concerns how A.S. affects recruitment and selection, how individuals with A.S. compare to neurotypicals, and what do employers know about A.S.

## **1.6 Structure of Dissertation**

Following this introduction, Chapter Two reviews the relevant literature. It explores the evolution of intelligence theories, the symptoms and characterisation of A.S. in adults, issues concerning A.S. and employment, including its effects on selection processes, and disability legislation. The chapter concludes with an outlining of the research question and hypotheses.

Chapter Three, “Case Studies of Asperger's Syndrome in the Workplace” examines four individuals in the workplace in relation to A.S. These include: two individuals with A.S.; a software development manager who has employed someone with A.S., and a job coach who has facilitated the integration of individuals with disabilities (including A.S.) into paid employment. The case studies were analysed using content analysis, and common themes were identified. These themes are discussed in relation to relevant literature in the Discussion section. The information collected in the case studies was used to create the personas in Chapters 4 and 5.

In Chapter Four, entitled “Identifying Desirable Characteristics in Candidates”, employers were asked to describe desirable and undesirable candidate characteristics. Subsequently, employers were asked to rank personas of a neurotypical and A.S. candidate. These personas were created using the data collected from the case studies in Chapter Three. Employers were asked to choose a preferred candidate in terms of employability and perceived intelligence. The findings were statistically analysed and conclusions were drawn relating to the literature.

The following chapter, “Employers’ Implicit Theories of Intelligence in the Recruitment of Individuals with Asperger’s Syndrome” examines employer perceptions of emotional and cognitive intelligence. Participants were also presented with a detailed description of a candidate with A.S. which included summaries of qualifications and work experience, previous employer references and job interview notes and were subsequently asked to rate the A.S. candidate’s employability and intelligence.

The final Discussion Chapter, (Chapter Six) begins with a discussion of the general research question. This is followed by a discussion of the hypotheses in relation to the findings from Chapters 3-5, with the view of drawing common conclusions between these individual studies and previous literature and outlines the overall strengths and limitations of the study and recommendations for future policy and research.

**Chapter 2:**

**Literature Review**

## **2.1 Introduction**

This study aims to investigate if employers' implicit theories of intelligence are based in cognitive or emotional theory, and whether these theories affect the recruitment of individuals with Asperger's Syndrome (A.S.). Employers' conception of intelligence can affect many aspects of recruitment and selection, including job advertising, screening methods, and recruitment methods. The structure and content of these methods can differ according to what the employer is looking for (Gunnigle, 2006). However, the most commonly used method is the interview (McMahon, 2002), which is not the most ideal method for individuals with A.S. considering the syndrome's associated social deficits (Atwood, 1998). This literature review begins with a consideration of the much debated theories of intelligence, including the evolution from the traditional cognitive viewpoint to the emotional theories which are becoming more prevalent in the workplace. Next, this review outlines the diagnostic criteria of A.S., quality of life of adults with the syndrome, and the effects of A.S. on recruitment, selection and employment. Finally, this chapter concludes with an outline of the research question and hypotheses.

## **2.2 The Evolution of Intelligence Theories**

Intelligence has been a much debated topic in psychology over the last century. A symposium entitled Intelligence and it's measurement investigated experts' views of intelligence provided several different definitions (Sternberg, 1982). These various definitions encompassed a wide array of cognitive factors such as sensation, perception, memory, judgement, adapting to the environment and the ability to learn. A similar investigation by Sternberg and Detterman (1986) presented twelve conflicting definitions of intelligence from twelve theorists. Definitions and measures of intelligence can be inaccurately reported and insensitive to various groups including women, ethnic minorities and those with a disability (Robson, 2002).

The Black Intelligence Test of Cultural Homogeny (Williams, 1972) was designed to be appropriate for the language, attitudes and life-styles of African Americans. However this "adapted" measure has been widely criticised as it seems to imply the intelligence level set by dominant cultures only allows for substandard results from the minorities (Tatum, 1997). A controversial book by Herrnstein and Murray (1994) implied that the lower scores achieved by ethnic groups on intelligence tests

compared to more dominant groups reflect a combination of environmental and genetic factors. This controversy prompted the American Psychological Association and the Board of Scientific Affairs to prepare an authoritative report (Neisser et al., 1996) that could be referred to and used by theorists on all sides of the intelligence debate as a basis for discussion. The subsequent report described intelligence as the ability to understand complex ideas, to learn and remember information, to engage in various forms of reasoning and to apply this information to behaviour in an adaptive way. Nonetheless, intelligence continues to be an ill-defined phenomenon (Kalat, 2005), as psychologists continue to research the topic further, with subsequent research exploring the social and emotional aspects of intelligence, or the current research into implicit theories of intelligence rather than the traditional study of the explicit.

Psychologists develop explicit theories of intelligence based on data obtained from performance on intelligence tests. Contrary to the seemingly obvious course of action, intelligence tests were developed without any definition of intelligence, as they preceded any theoretical framework of intelligence (Kalat, 2005; Kamphaus, 2005). Similarly, in a presidential address to the American Psychological Society, Henry Garrett said “The measurement of intelligent behaviour began as a practical enterprise and that theory has in general followed rather than preceded application” (Garrett, 1946, p. 573). Binet and Simon (1905) developed one of the first of these kinds of tests- the Intelligence Quotient (IQ) test, where an individual’s probable performance in school or similar setting is measured. Explicit theories of intelligence seek to explain the performance which cause IQ scores. After a historical review of the many explicit theories of intelligence, the most relevant theories can be categorised into: Classic; Modern Cognitive; and Emerging Emotional.

Classic approaches include Spearman’s two-factor theory (1904) and Cattell’s Fluid and Crystallised Intelligences (1971). Spearman (1904) based his theory on the measurement of individual differences in performance of various tasks. After finding that performances on any task correlated positively with performance in others, he suggested that to perform well in these tasks, individuals have a *g* factor- a general, dominant reasoning ability. However, performances on all tasks did not correlate perfectly; hence he suggested that each task requires the *s* factor, an unknown number

of specific abilities which can be mechanical, musical, arithmetical, logical, and spatial. Spearman concluded that the *g* factor determines an individual's intelligence. Geary (2005) suggested that *g* is positively correlated with job performance, however a classic paper by Sternberg and Wagner (1993) suggested that *g* is not the type of intelligence used in successful job performance. Cattell (1971) proposed a modification to the *g* factor by differentiating between fluid and crystallised intelligence within *g*. Fluid intelligence is the power of reasoning and using information, while crystallised intelligence consists of acquired knowledge and skills and one's ability to apply these in specific situations. For example, fluid intelligence would be needed to learn new skills in a job, while crystallised intelligence refers to the acquired job skills. Similarly, IQ tests generally focus on fluid intelligence, whereas an employer may require a crystallised test specific to a given job (Kalat, 2005).

Modern Cognitive theories include Sternberg's (1985) triarchic model, which consists of three types of intelligences: analytic, practical and creative. Analytic intelligence is what is tested in IQ tests, and is relied upon in academic studies. Practical intelligence is the reasoning used to solve everyday, real-world problems. Creative intelligence is required in order to be innovative or to find novel ways to solve problems. Any combination of these intelligences can be found in someone with A.S. While the majority of individuals with A.S. would receive average scores on a general IQ test, some develop original problem solving strategies (Asperger, 1944) which would allude to Sternberg's (1985) practical and creative intelligences. Sternberg (1985) summarised that creative intelligence is different to IQ but is reliant on a certain level of IQ to function effectively. Sternberg (2003) proposed that intelligence is associated with a generalized socioeconomic status, being in employment, income, job success and prestige of job, and suggests that there is a correlation between IQ and job success across virtually all types of jobs. Another modern cognitive theory is Gardner's multiple intelligences (1983, 1999). Gardner proposed that there are eight basic forms of intelligence: linguistic, spatial, musical, logical-mathematical, bodily-kinaesthetic, intrapersonal, interpersonal, naturalist and existential. Research by Walters and Gardner (1985) found that most professions require combinations of different types of intelligence. Each individual can be characterised by a profile of intelligences where some types of intelligence can be strong and others can be relatively weak. With

regard to A.S., linguistic and logical-mathematical intelligences can be quite strong, while the motor clumsiness which is often present in those with A.S. not to mention the social deficits can affect the interpersonal and intrapersonal intelligences.

Emerging Emotional theories include the theory of Emotional Intelligence (E.I.), conceptualised by Salovey and Mayer (Mayer & Salovey, 1993, 1995; Salovey & Mayer, 1990) and popularised by Goleman (1995). E.I. is comprised of three abilities: appraising and expressing emotions in the self and others; regulating emotion in the self and others; adapting emotions to achieve one's goals. It appears that E.I. underlies some aspects of Sternberg's practical intelligence (1985), and in the interpersonal and intrapersonal aspects of Gardner's theory (1983, 1999). Dweck, Chiu and Hong (1995) identified implicit theories of intelligence as an entity or incremental. An entity theory of intelligence views intellect as a permanent, fixed and personal trait for example, someone with this viewpoint may attribute a bad score on an exam to not being clever enough. The conflicting incremental theory describes an intelligence that can be improved and developed. An individual in keeping with this theory may interpret a bad score on an exam as a sign to improve effort or strategy in the future.

Sternberg (1982) argued that there are several reasons why it is important to measure what people think intelligence is (implicit theories) as opposed to only valuing what it actually is (explicit theories). He said it is important to understand the judgements people make about their own and others' abilities as they are often used in everyday judgements. Secondly, implicit theories help to define a phenomenon that is not easily understood. Implicit theories can suggest some aspects of a construct to scientific investigators which have been over or under-represented in previous investigations. In addition, implicit theories can be useful for investigators when they suspect that existing explicit theories are wrong or misleading, and in need of correction or supplementation. Finally, an understanding of implicit theories of intelligence can help to clarify developmental or cross-cultural differences.

Implicit theories of intelligence can be defined as what individuals mean when they use the word "intelligence". They are the informal theories used by individuals, from laypeople to psychologists in the everyday assessments of intelligence. For example, job interviewers may decide which candidate to hire on the basis of their implicit

theories of intelligence (Sternberg, 1982). Assessments of individuals' intellectual abilities are a common occurrence, which are made during social interactions such as conversations during coffee breaks and parties (Sternberg, Conway, Ketron & Bernstein, 1981).

Many psychologists accept that implicit theories play role in the organisation and interpretation of information (Carey & Smith, 1993; Dweck & Leggett, 1988; Epstein, 1989; Wittenbrink, Gist & Hilton, 1993). Dweck, Chiu and Hong (1995) suggest that there is a need for psychologists to conduct further research into implicit theories, to clearly identify them and understand their effects, as they are generally poorly articulated. Despite the on-going debate among psychologists concerning the definition of intelligence throughout the last century, the focus is almost entirely on explicit theories, with very few researchers investigating the implicit.

Explicit theories such as those by Spearman (1904), Gardner (1983, 1999) and Mayer and Salovey (Mayer & Salovey, 1993, 1995; Salovey & Mayer, 1990) could influence implicit theories of intelligence. For example, factors of emotional intelligence, like social skills are increasingly valued by employers (Daly, 2008). However, this influence can be slow and uncertain, which makes it difficult to ascertain which explicit theory is most influential (Sternberg, 1982).

Implicit theories of intelligence are the individual definitions of intelligence that each person has in their own mind. Few studies regarding this topic are evident; however, further studies could investigate the expectations that people have concerning individual differences in intellectual performance. It is possible that implicit theories of intelligence can be responsible for laypeople's misconceptions relating to individuals with intellectual disabilities. For example, a multinational study by Siperstein, Norins, Corbin and Shriver (2003) found that the majority of people surveyed expected that the inclusion of individuals with intellectual disabilities in the workplace would result in more accidents on the job. However an investigation of employers' expectations and evaluation of job performance of employees with a mild intellectual disability found that, in the majority of cases, employees with a mild intellectual disability fulfilled employer expectations and in several cases, they exceeded expectations (Tse, 1994).

### 2.3 Asperger's Syndrome in Adults

In Ireland and internationally, the term intellectual disability has evolved beyond referring to IQ scores (National Disability Authority, 2003). The term refers to individuals who previously may have been classified as “mentally handicapped”, or “with a learning disability”. Intellectual disability refers to many disorders including Down syndrome, dyslexia, autism and A.S.

An intellectual disability, as a general term refers to many disorders characterized by significant difficulties which started before adulthood, with lasting effects on development. These difficulties include:

- The acquisition and use of communication, reading, writing, reasoning and mathematical abilities;
- Understanding new or complex information;
- Learning new skills and coping independently.

(Bender, 2001).

The National Intellectual Disability Database (National Disability Authority, 2003) documents the prevalence of intellectual disabilities in Ireland. The results of a 2002 survey indicated that there are 25,448 individuals with intellectual disabilities known to service providers, with approximately 2.4 persons per 1000 with a mild intellectual disability, and 3.7 per 1000 with moderate/severe/profound disabilities. An example of a mild intellectual disability is A.S. As of 2001, it was estimated that there were 10,000 individuals with A.S. in Ireland. A.S. is a pervasive developmental disorder which falls on the higher functioning end of the autism spectrum disorder.

Asperger's Syndrome is usually identified in children, however, in some cases, it is diagnosed in later stages of life. Individuals with a childhood diagnosis of A.S. generally function well (but not at a typical level) at an adult age. However, adults with A.S. who have been misdiagnosed or undiagnosed as children, generally struggle to adjust socially compared to those diagnosed as children (Gillberg, 2002).

Hans Asperger, a paediatrician, first described A.S. (1944) and identified the disorder in some of his young male patients. However, he did not publish any formal diagnostic criteria for the syndrome (Gillberg, 2002). For the purpose of this study, the diagnostic criteria according to the Diagnostic and Statistical Manual of Mental

Disorders (DSM-IV-TR) (American Psychiatric Association, 2000) (Figure 2.1, below) will be used to describe the broad and varied nature of A.S.

1. *Qualitative impairment in social interaction (any two of the following):*
  - (a) marked impairment in the use of multiple non-verbal behaviours such as eye-to-eye gaze, facial expression, body postures and gesture to regulate social interaction
  - (b) failure to develop peer relationships appropriate to developmental level
  - (c) a lack of spontaneous seeking to share enjoyment, interests, or achievements with other people (e.g. by lack of showing, bringing or pointing out objects of interest to other people)
  - (d) lack of social or emotional reciprocity
2. *Restricted or repetitive and stereotyped patterns of behaviour, interests and activities (as manifested by at least one of the following):*
  - (a) encompassing preoccupation with one or more stereotyped and restricted patterns of interest that is abnormal either in intensity or focus
  - (b) apparently inflexible adherence to specific, non-functional routines or rituals
  - (c) stereotyped and repetitive motor mannerisms (e.g. hand- or finger-flapping or twisting, or complex whole-body movements)
  - (d) persistent preoccupation with parts of objects
3. *The disturbance causes a clinically significant impairment in social, occupational or other important areas of functioning*
4. *There is no clinically significant general delay in language (e.g. single words used by age 2 years, communicative phrases used by age 3 years)*
5. *There is no clinically significant delay in cognitive development or in the development of age-appropriate self-help skills, adaptive behaviour (other than in social interaction), and curiosity about the environment in childhood*
6. *Criteria are not met for another specific developmental disorder or schizophrenia*

**Figure 2.1 Diagnostic Criteria for A.S. according to DSM-IVTR (American Psychiatric Association, 2000, as cited in Kirby, 2007)**

Howlin (2000) found that although it is not impossible, it can be very difficult for individuals with A.S. to succeed as adults. Correspondingly, Gillberg outlines the three different manifestations of A.S. in adults. These are:

- *The aloof group* which accounts for at least two out of every five individuals with A.S. They are typically withdrawn and aloof. They often lead an isolated life as they often have difficulty in tolerating others. This is the type of A.S. that is most similar to autism
- *The active and odd group* which accounts for one or two out of five individuals with A.S. They are often active socially but are likely to act oddly, for example speaking loudly when a whisper is expected. These individuals are often thought of as chauvinists, “nerds” or manic
- *The passive group* is the least common A.S. group. They may have shown A.S. symptoms in childhood, but developed a passive personality in adulthood. It can be difficult to identify A.S. in the individual if childhood behaviours are not known. They lead a withdrawn life with little effort made to meet new people and can be perceived as obsessive-compulsive or passive-aggressive.

Renty and Roeyers (2006) investigated the quality of life high-functioning adults with autistic spectrum disorder in Belgium. In a sample with a mean age of 28, only 24.1% had a college or university education, 27.6% were in mainstream employment, and only 10.3% lived independently. Interestingly, a Belgian study of the general population contained a similar amount of people (27%) with a college or university education (Organisation for Economic Co-operation and Development, 2003). In another similar sample of the general population of Belgium, 62% of the sample was in employment (European Foundation for the Improvement of Living and Working Conditions, 2009).

In two separate literature reviews concerning the outcome for adults with high functioning autism or A.S., Howlin (2000) and Tsatsanis (2003) found that only a minority had received college or university education, lived independently, had close

spontaneous friendships, were married or had a paid job. Similarly, a longitudinal study of the adult outcomes of children with autism by Howlin, Goode, Hutton and Rutter (2004) found that only individuals with IQ scores greater than 70 were likely to function adequately in adult life. Results suggested that this functionality depends on family support, employment, and social services. Conversely, a study by Engstrom, Ekstrom and Emilsson (2003) found that the majority of adults with A.S. or High-Functioning Autism (H.F.A) who took part lived independently. However, only one participant was in employment and none were married or had children. The conflicting findings of these studies could support the aforementioned different manifestations of A.S., as reported by Gillberg (2002) or the differing levels of support available to the participants as mentioned by Howlin, Goode, Hutton and Rutter (2004).

During an investigation of the social challenges from the perspective of individuals with A.S. (Muller, Schuler & Yates, 2008), six themes emerged concerning participants' experiences from their social lives. These include: intense isolation; difficulty initiating social interactions; challenges relating to communication; longing for intimacy and social connectedness; desire to contribute to one's community and; effort to develop greater social/self-awareness.

#### **2.4 Issues Concerning Asperger's Syndrome and Employment**

It has been shown that individuals with A.S. are quite capable of completing third level degrees (Berney, 2004), however they often find it difficult to obtain jobs in the fields which they have been trained. While a job applicant with A.S. may have the technical and intellectual skills required for the job, the applicant may find the social skills requirements to be overwhelming Hurlbutt and Chalmers (2004) have also concluded that individuals with A.S. have difficulty in finding employment in a job that matches their ability levels, understanding the social "rules" of the workplace, and maintaining employment. Indeed, work-related problems begin at the job interview stage, as many individuals with A.S. do not have the skills required for this situation.

Aside from obvious financial incentives associated with being in employment, there are often a range of auxiliary benefits to being employed, such as improved self

esteem, reduced feelings of loneliness and the opportunity to gain a better quality of life. The term “quality of life” refers to a set of factors relating to personal wellbeing, including: emotional wellbeing; interpersonal relationships; material wellbeing; personal development; physical wellbeing; self-determination; social inclusion; and rights (Schalock, 2004). With regard to individuals with a disability, employment is a facility that allows for social integration into the community. Building social relationships is a key developmental life stage for young adults, and is a significant challenge for those with A.S. (Barnhill, 2001). However, the Economic and Social Research Institute of Ireland (2007) found that individuals with long-term disabilities are 42% less likely to be in employment than their able-bodied counterparts. The barriers to employment for those with A.S. include the symptoms of the syndrome itself, like difficulties in regulating social interaction and an adherence to rigid, non-functioning routines, and external barriers such as employer attitudes. No studies are evident which investigate whether these attitudes are based in implicit theories of intelligence, disability stereotypes, or a combination of the two. Either way, individuals with A.S. can have difficulty finding, securing and maintaining suitable jobs (Hurlbutt & Chalmers, 2004).

Compounding these problems, many of the characteristics associated with A.S. also conflict with the rigid working environment. In many cases, individuals with A.S. have difficulty coping with changes, such as changes to routines or schedules, and environmental changes, both of which are common in the workplace.

Another common characteristic of A.S. that can be problematic in the workplace is that they often have rituals or compulsions, like arranging objects in a precise order. It can be unsettling for someone with A.S. if they are forced to comply with workplace procedures if they are inconsistent with the aforementioned characteristics. This can often lead to behaviour problems such as aggression or property destruction (Smith, Belcher & Juhrs, 1995). Table 2.2 (overleaf) displays characteristics of A.S. and their impact of vocational choice and development.

**Table 2.2: Characteristics of A.S. and their Impact on Vocational Choice and Development**

<b>Characteristic</b>	<b>Impact</b>
<i>Deficits in socialisation</i>	Select jobs with: <ul style="list-style-type: none"> <li>○ Limited social skills requirements</li> <li>○ Limited public contact</li> <li>○ Solitary job duties</li> </ul> Provide job coach Provide social skills training
<i>Abnormal response to sensory stimulation</i>	Select jobs to suit preferred stimulation
<i>Difficulty handling change</i>	Select jobs that <ul style="list-style-type: none"> <li>○ Presents few daily changes</li> <li>○ Provides assistance to handle change</li> </ul>
<i>Savant and splinter skills</i>	Select jobs that benefit from on these skills
<i>Rituals and compulsions</i>	Select jobs that require attention to detail and precision/accuracy
<i>Fluctuations in attention and off-task behaviours</i>	Provide supervision and training to increase on-task behaviours

(Smith, Belcher & Juhrs, 1995)

Ideally, the employer should provide adequate support in the event that, if there was a problem relating to A.S. in the workplace, it would be quickly detected and rectified (Berney, 2004). As a consequence of the condition, social deficits impact the types of jobs or vocations available to individuals with A.S. Smith, Belcher and Juhrs (1995) also advise that while it is necessary to find a job that matches the characteristics of a condition on the autistic spectrum, it is also important to match the characteristics of the individual. Aside from matching a career to suit the benefits and deficits of A.S,

the individual concerned may also have ambitions, likes and dislikes that any neurotypical individual may have.

Although there is a wide range of research regarding employer attitudes towards hiring individuals with a disability, many of the findings have provided conflicting results. For example, issues such as attendance, safety and productivity have been identified as positive attributes by some employers, but have also been cited as concerns by others. Unger (2002) investigated four factors in her employer attitudinal research: disability of candidate; previous experience with workers with disabilities; size of employer; and sector of business or industry.

Fuqua, Rathburn, & Gade (1984) discovered that employers expressed greater concerns over employing individuals with psychological or emotional disabilities than employing those with physical disabilities. Similarly, study by Minskoff, Sautter, Hoffman and Hawks (1987) found that one third of employers across nine industries indicated that they would not knowingly hire an applicant with a learning disability. Fuqua et al. (1984) found that employers expressed little concern over co-worker acceptance and interaction. Conversely, Johnson, Greenwood and Schriener (1988) found that employers expressed concerns with regard to the social skills of disabled employees, especially their ability work in a team. This finding may affect the willingness of individuals with “hidden” disabilities to disclose them to their employers, as suggested by Unger (2002).

Unger (2002) investigated employer attitudes to employing individuals with disabilities before and after the implementation of the American Disability Act (ADA) employment regulations (Department of Justice, 1990). The majority of studies that took place before the ADA found that employers who have previous experience with workers with disabilities reported more favourable attitudes toward hiring candidates with the same disability. Similarly, after the implementation of the ADA, employers reported favourable attitudes toward working with individuals with disabilities. However, these attitudes were regardless of any previous experience with a disabled workforce.

It is thought that larger employers in larger organizations are more likely to include individuals with disabilities in the workforce as they have a wider variety of jobs available, greater personnel and economic resources (Blanck, 1998; Collington, 1986; Kemp, 1991). Investigations into the relationship between sector of industry and employer attitudes toward employees with disabilities did not find a significant relationship (Gade & Toutages, 1983; Kregel & Tomiyasu, 1994).

Unger (2002) also investigated employers' perceived benefits and concerns of employing persons with disabilities, which included work performance/quality, productivity, safety, dependability/dedication, attendance or punctuality, community image/corporate social responsibility, turnover or retention, appearance, co-worker acceptance/ ability to interact as part of a team/ social skills, lack of necessary job skills/ experience, financial incentives, costs such as workers' compensation and accommodations and extra training or supervision. Few of the perceived benefits and concerns relate to the benefits of disability or concern for the person with a disability in the workplace. When able bodied and neurotypical individuals use the word 'disability', they all too often focus on the limitations of the condition and not the abilities of the individual. With regard to A.S., it may be perceived as an impairment by neurotypical individuals; however, many individuals with A.S. greatly appreciate the auxiliary benefits associated with the syndrome. Walker and Fitzgerald (2006) compiled a list of exceptional talents and abilities associated with A.S. These include features of speech and language such as a higher verbal IQ and a talent for mimicry and impersonation. The intense interests of those with A.S. can also be a strong point, enabling excellent rote memory and innovation. In addition to this, individuals with A.S. quite often have good visuo-spatial skills. Howlin and Mawhood (1996) found that those with A.S. typically have better language skills than neurotypical individuals and relatively high levels of ability in other areas.

Despite the potential benefits of A.S., individuals with the condition often find it difficult to maintain regular employment. Goode, Rutter and Howlin (1994) found that few individuals with A.S., even those with formal qualifications, are in regular employment, including jobs of low occupational status. Nesbitt (2000) cites the lack of awareness and understanding of A.S. as the main reasons why adults with the syndrome have few job opportunities.

## **2.5 The Effects of Asperger's Syndrome on Recruitment and Selection**

“[People with Asperger's syndrome's] difficulties start with the skills required for the job interview” (Berney, 2004, p. 348).

The employment interview is one of the most popular methods of recruitment and selection in organisations (Posthuma, Morgeson & Campion, 2002). It allows representatives from an organisation to assess a candidate's suitability for employment. Eder and Harris (1999) define the interview as an interviewer-applicant exchange of information where the applicant's work-related knowledge skills and abilities, motivations, values and, reliability are assessed.

Job interviews can be especially difficult for individuals with A.S., as they may find themselves more anxious than a neurotypical person (Berney, 2004). Individuals with A.S. are often aware of the deficits in their social interactions that can affect their employability but are often unable to change their behaviour (Hurlbutt & Chambers, 2004).

Although the interview is one of the more popular selection methods, McMahon (2002) argues that it is neither reliable nor valid. A reliable measure produces the same results if used on different occasions and subjects. The interview is considered unreliable because the interpretations of different interviewers are inconsistent. Interviewers often reveal inconsistencies in their own interpretations over a period of time. A valid measure is one that assesses what it purports to determine. McMahon (2002) noted that the interview is not a valid test of a candidate's suitability for employment because: it is an artificial situation which often affects anxiety levels; it cannot assess all of the relevant areas of suitability for employment; and the impression that the interviewee makes may not transfer to the workplace.

Interviews are used to select the person who best fits the requirements believed to be associated with successful work performance (Eder & Harris, 1999). It is not certain that this is all that is being assessed, or that the interview assesses it at all. Posthuma, Morgeson and Campion (2002) acknowledge the many studies that have cited the various social factors associated with the employment interview (Arvey and Campion, 1982; Harris, 1989; Schmitt, 1976). They conclude that the social context

in which a candidate resides influences their behaviour, processes and outcomes of an interview. Job interviews can be stressful for any individual, however the deficits as mentioned in the previous section in adults with Asperger's Syndrome puts these candidates in a predetermined disposition. McMahon (2002) cited further limitations of the employment interview: it is an artificial situation, which cannot accurately assess all of the relevant areas of suitability for employment.

As well as the candidate's skills and knowledge, applicant fit can also be measured in an interview setting. Applicant fit is the measurement of the match between candidate characteristics and the job or organisation. Rynes and Gerhart (1990) found that ratings of applicant fit were associated with goal orientation and prior accomplishments but also with a social factor - interpersonal skill. However, Posthuma, Morgeson and Campion (2002) highlight that it is unclear whether applicant fit means being similar to members of the workforce or filling in where the workforce is lacking.

Social factors have been a consistent feature in research over a past number of decades investigating the constructs measured in the employment interview. For example, Schmitt (1976) found that sociability was measured in the employment interview; Arvey and Campion (1982) found that interviews measure sociability; Borman and Motowildo (1993) and Latham and Skarlicki (1995) suggested that social and communication skills can be assessed effectively in the employment interview; Huffcutt, Conway, Roth and Stone (2001) reported that applied social skills are measured in interviews. Another social factor thought to influence interview outcomes is impression management. It is the way in which applicants attempt to present themselves favourably to the interviewer. Gilmore and Ferris (1989) found a positive correlation between a high level of impression management in candidates and a high rating of interview performance by interviewers. Generally speaking, individuals with A.S. do not typically have the skills which are required for these social factors which may be assessed in an interview.

The employment interview is used by recruiters as a decision-making tool (Posthuma, Morgeson & Campion, 2002). However, humans have limitations and biases (Morgeson & Campion, 1997). For example, a classic study by Schneider and Shiffrin

in human information processing (1977) found that interviewers who process information in an automatic manner (as opposed to controlled) can lead to a reliance on candidate stereotypes. General and practical intelligence has been found to be a useful predictor of job performance (Schmidt & Hunter, 1981). Findings from Fox and Spector (2000) show that emotional intelligence can contribute to a successful job interview outcome, however, due to the social deficits associated with A.S., it is likely that an individual with the syndrome would not have a high level of emotional intelligence.

Candidates can be compared to the other candidates in earlier interviews (McMahon, 2002). If an interviewer's implicit theory of intelligence concerns a social or emotional theory of intelligence (such as Goleman, 1995), an A.S. candidate is likely to appear less intelligent than a neurotypical candidate. Candidates with A.S. may be more anxious and stressed than a typical candidate. If this is the case, the A.S. candidate's behaviour (verbal and non-verbal) may conflict with the interviewer's implicit theory of intelligence and how he/she expects an individual with an intellectual disability to behave. If little is known about employers' implicit theories of intelligence, it is difficult to determine if interviewers are biased towards those with intellectual disabilities. It is possible employers' misconceptions about intelligence and intellectual disabilities can negatively affect the recruitment of individuals with A.S.

## **2.6 Disability in the Workplace: Discrimination and Legislation**

The President of Ireland, Mary McAleese recently spoke of the high unemployment rates for people with a disability and the frustrating barriers which they face:

“In so many deeply-embedded and insidious ways, our disabled citizens find themselves in cul de sacs which are frustrating and dispiriting....Right here and now, unemployment rates for people with a disability, including graduates, remain much greater than for their non-disabled peers....There is a critical mass of ambitious children and young adults with disability forming, and we have to ensure that the world is ready for them” (Rodden, 2007, p. 5).

As reported by the Irish Times, approximately 60% of graduates with disabilities obtain employment; however, 80% do not inform prospective employers in the application process about their condition ('Firms urged to employ disabled workers', 2007). However, the report did not specify the number of graduates with disabilities in employment who provided information about their disability in the application process. At first glance, the statistics in the report are quite encouraging; however, they raise the questions about why 40% of graduates with disabilities do not obtain employment, and what happens to the 20% of candidates who inform prospective employers about their condition.

Employers have legal obligations in the recruitment and selection processes. It has been noted that "many of Ireland's most reputable employers have found themselves in murky legal waters for the manner in which they have handled their recruitment and selection activities" (McMahon, 2002, p. 93). The Employment Equality Act (Equality Authority, 2004) prohibits the discrimination on the grounds of a disability. This applies to recruitment advertising, how an employer recruits new employees and in training, experience and promotion opportunities. Discrimination can be "direct", whereby the individual is treated less favorably than others, or "indirect", where the individual must comply with a condition that is not essential to the job, but with which the majority of individuals with typical abilities can comply with. The Freedom of Information Act gives applicants the right to be given reasons for decisions taken by public bodies that affect them. Shortly after the implementation of the Employment Equality Act, it was noted that there was a "frightening ignorance amongst Irish employers about the legal provisions associated with the recruitment and selection process" (McMahon, 2001, p.19).

An organisation generally compiles a personnel specification to describe the ideal candidate for the position. This process helps to determine overall candidate suitability when the eventual selection is made. This helps to differentiate between what is essential to perform the job and those that are desirable (Gunnigle, Heraty & Morley, 2006). The non-suitability of a candidate with a disability can only be assessed against this specification. For example, the specification for a sales position may require a candidate with excellent interpersonal skills, which would not be suitable for an individual with A.S. During a job interview, a candidate may be asked

if he/she has a disability, however, the question must be explained as to why it is being asked. For example, to discover if any changes need to be made in the workplace in order for the individual to carry out the job (Howlings, 1996). A candidate will be considered as capable of carrying out the job on the condition that these adjustments (such as special treatment or facilities) can be provided at a nominal cost (McMahon, 2002). The Irish Health Services Employers' Agency (2001) suggested some alternative practices in the recruitment process to protect employers and candidates from discrimination issues. In the area of disabilities and job interviews, they suggest that candidates should have an option of methods for submitting their applications. For example, individuals with dyslexia may prefer to make applications via phone, or other audio communication. The interview should be in an accessible area, with an interpreter, facilitator or other assistance being available for the candidate.

## **2.7 Research Question and Hypotheses**

Studies concerning A.S. and employment are under-represented among the vast number of studies regarding autistic spectrum disorders. Similarly, there have been many investigations of employer attitudes toward disabilities in the workplace. Studies regarding A.S. and employment have generally concluded that individuals with A.S. find it difficult to obtain employment (Berney, 2004; Hurlbutt and Chalmers, 2004; Muller, Schuler & Yates, 2008). However, few studies have investigated the effects of A.S. specifically on recruitment, nor do they delve into employer knowledge of A.S., of which perceptions are commonly incorrect. Studies regarding implicit theories have found that they are the informal theories used in the organisation and interpretation of information. Additionally, implicit theories of intelligence are used in everyday assessments of intelligence. An investigation of the use and nature of implicit theories of intelligence in the recruitment process could help jobseekers with A.S., who are typically highly qualified but find it difficult to obtain and maintain employment. The Case Studies in Chapter Three will address the following research question: **How does Asperger's Syndrome affect employment: how does it affect recruitment and selection, how do individuals with Asperger's Syndrome compare to neurotypicals and what do employers know about the condition?**

Asperger's Syndrome is characterised by exceptional cognitive abilities, paired with social deficits. In comparison, and generally speaking, neurotypicals rarely have exceptional cognitive abilities, and social deficits are uncommon. Traditionally, cognitive characteristics were measured in the recruitment process (Gunnigle, Heraty & Morley, 2006). However, social characteristics are becoming more important in recruitment and selection (Fox & Spector, 2000) and in the workplace, especially with regard to teamwork (Daly, 2008). An understanding of employers' desirable candidate characteristics, whether cognitive or social, would give an indication of how desirable an A.S. candidate is compared to a neurotypical. In addition to this, ratings of an A.S. and a neurotypical candidate's employability and perceived intelligence, compared to desirable characteristics would give an indication of the effects of cognitive and social characteristics on employability and perception of intelligence. These factors have led to the following hypotheses, which will be dealt with in Chapter Four.

1. Employers who perceive social characteristics in candidates desirable are more likely to hire a neurotypical candidate than an A.S. candidate.
2. Employers who perceive cognitive characteristics in candidates more desirable are more likely to hire a candidate with A.S. than a neurotypical candidate.
3. Employers who perceive social characteristics in candidates desirable are more likely to consider a neurotypical candidate instead of an A.S. candidate as intelligent.
4. Employers who perceive cognitive characteristics in candidates desirable are more likely to consider a candidate with A.S. as intelligent.

Modern Cognitive theories of intelligence such as Sternberg (1985) and Gardner (1983, 1999) refer to a 'traditional' view of intelligence for the most part. These intelligences refer to what is utilised in academia, problem solving and innovative ways of thinking. This type of intelligence is especially associated with individuals with A.S., as they often have exceptional cognitive abilities when compared to neurotypicals (Fitzgerald, 2005). Emotional theories of intelligence (Mayer & Salovey, 1993, 1995; Salovey & Mayer, 1990) refer to intelligences involved in regulating expressing and adapting emotion, and are used in interpersonal interactions. Due to the social deficits associated with A.S., it is generally not associated with theories of Emotional Intelligence (E.I.). Therefore, an employer

whose implicit theory of intelligence is influenced by E.I. is less likely to hire or rate the intelligence of an A.S. candidate highly compared to a neurotypical candidate. Similarly, an employer whose implicit theory of intelligence is influenced by a cognitive theory is less likely to hire or rate the intelligence of a neurotypical candidate highly compared to an A.S. candidate. These studies led the following hypotheses, which will be tested in Chapter 5

1. Employers who rate emotional intelligence highly would be less likely than employers who rate cognitive intelligence to hire someone with A.S.
2. Employers would be unlikely to hire a candidate who is described as having the symptoms of A.S.
3. Employers would be more likely to hire a candidate knowing the candidate has A.S. than a neurotypical candidate.

## **2.8 Conclusion**

There are few studies regarding A.S. in the workplace, including how it affects recruitment, selection and job performance. Similarly, no studies regarding employer attitudes to A.S. are evident. Given the exceptional cognitive abilities and social deficits associated with A.S., the current trend of recruiting an adaptable team-player as opposed to the traditional cognitive candidate could be problematic for jobseekers with A.S. This problem could become more of an issue in this current economic climate given the increased competition in the labour market, which is now overcrowded with a large population of highly qualified, experienced individuals. This dissertation attempts to provide some guidance for individuals with A.S., by investigating A.S. in the workplace, discovering what employers know about A.S., how likely an A.S. candidate is to be employed compared to a neurotypical, and identifying if factors of intelligence influence this decision.

## **Chapter 3:**

# **Case Studies of Asperger's Syndrome in the Workplace**

### **3.1 Introduction**

Studies regarding A.S. and employment have generally concluded that individuals with A.S. find it difficult to obtain employment (Berney, 2004; Hurlbutt and Chalmers, 2004; Muller, Schuler & Yates, 2008). However, few studies have investigated the effects of A.S. specifically on recruitment, nor do they delve into employer knowledge of A.S., a condition which is commonly misconceived. The Case Studies in Chapter Three will address the following research question: How does Asperger's Syndrome affect employment: how does it affect recruitment and selection, how do individuals with Asperger's Syndrome compare to neurotypicals and what do employers know about the condition?

In this chapter, case studies concerning Asperger's Syndrome (A.S.) and employment were compiled. Case studies were chosen over other qualitative and quantitative methods for several reasons. The method of data collection allowed for a large amount of rich data, which, as both a preliminary and exploratory study, was quite useful due to the small amount of research in this area. It was hoped that this methodological choice would provide interesting information which could influence further studies within the project.

The researcher considered expanding this study into a triangulated approach after these case studies. However, there were difficulties in identifying recruiting large numbers of participants. There was also a wide geographical distribution of participants, along with time constraints associated with the study and the respondent preference for online communication meant that a triangulation method was not possible.

Case studies also allowed for a human dimension to the study. This is especially relevant for a study regarding A.S., because individuals with A.S. were given an opportunity to express their thoughts and feelings, which are not commonly cited. Each participant was given the option of answering questions over the phone, in person, or via email. Participants all chose to reply via email, which could have negatively impacted the potential richness of the data. However, the information required may be perceived as sensitive, which some respondents may have felt uncomfortable answering in person. Also, the social deficits associated with A.S.

could have negatively affected a one-to-one interview. These case studies consisted of two individuals with A.S. and an employer. The case studies were based on responses to questionnaires regarding the employment of someone with A.S. An additional respondent is a job coach who has facilitated the integration of individuals with A.S. into paid employment. The data from the case studies was analysed for content and divided into four subsections: Demographic Characteristics of Respondents; Aspects of A.S. in the Workplace; Effects of A.S. in Personnel Selection; and Lack of Employer Education.

### **3.2 Methodology of the Case Study Research**

#### **3.2.1 Participants**

These case studies are based on the data collected from four participants. Purposive sampling was used to select the participants. Individuals with A.S. who have been in employment, employers who have hired individuals with A.S., and co-workers of individuals with A.S. were contacted by the researcher. The researcher joined online A.S. forums and contacted members in order to recruit participants. All participants were given pseudonyms to ensure anonymity. “Geraldine” is a 32 year old female working as a job coach in Dublin. “Paul” is a 29 year old male with A.S. living in the U.K. “Ed” is a 46 year old male with A.S. also living in the U.K. “Declan” is a 41 year old male. He manages a software development team which includes an employee with A.S.

The researcher received two additional replies from individuals who wished to take part in the study. A female with A.S. withdrew from the study before completion of the questionnaire. A parent of a child with A.S. also replied to the researcher. However, the respondent did not meet the sampling criteria because neither had experience of A.S. in the workplace as the child was still in school and had yet to enter the labour market.

#### **3.2.2 Materials**

Three questionnaires were developed for the study. The A.S. Questionnaire (see Appendix A) is comprised of four categories of questions. These four categories include questions about demographics, aspects of A.S. in the workplace, the effects of A.S. in personnel selection and lack of employer knowledge about A.S. The

Employer's Questionnaire (refer to Appendix B) and Job Coach Questionnaire (Appendix C) are slightly modified versions of the A.S. Questionnaire

The demographic questions were designed to collect information regarding participants' age, gender, and qualifications. A.S. participants were also asked what they liked and disliked about previous jobs. The category of questions about A.S. in the workplace asked the participants to indicate how A.S. affects job interviews, and how employees with A.S. compare to neurotypical employees. Participants were also asked to describe employer attitudes towards A.S. A consent form was developed for the case study participants, which can be found in Appendix D.

### 3.2.3 Procedure

The researcher joined several Irish and British A.S. internet forums. The researcher introduced herself and stated that she wished to find individuals with A.S., employers of individuals with A.S. and co-workers of individuals with A.S. All communication with the participants took place via email. During the initial contact with respondents, it was established which category of participant the respondent fit (employer, co-worker, or individual with A.S.). Upon determination of the participant category, the researcher sent the respective questionnaire and consent form. The emails contained a description of the aims of the study (including assurance of full anonymity and confidentiality), the questionnaire (Appendices A, B, or C), consent form (Appendix D) and instructions. The researcher requested that the respondents answer each question and return the questionnaire to the researcher via email. Participants were also advised of contact details for an A.S. helpline and support group if needed.

### 3.2.4 Ethical Concerns

There were a number of ethical concerns associated with this study. These include: confidentiality, anonymity and informed consent. The data was treated with full anonymity and confidentiality. The ethical statement on the consent form (Appendix D) assured participants that their data would be kept confidential and that they would not be identifiable in the final report. Participants have been given pseudonyms to ensure anonymity and any correspondence with the participants can only be accessed via a password known only to the researcher. It was considered that some participants may have discriminated against individuals with A.S. in the workplace or could make

discriminatory comments in the interview. It was not the aim of the researcher to obtain such admissions. Therefore the participants were made aware that the researcher had ensured that the questions asked would not prompt such admissions. Participants were also informed that if admissions of discrimination were made, the researcher must report such activity to the relevant authorities. However, no discriminatory comments were made and no discriminatory behaviours were described by the participants. Therefore, the researcher had no ethical responsibility to inform any authorities of the responses of participants.

Each questionnaire was preceded by a statement outlining the aims of the study (See Appendix D). This statement also indicated to participants that they were free to decline to answer any question, withdraw from the study at any time, or refuse to take part from the beginning, without any negative consequences. The statement also contained a disclaimer which informs employers taking part in the study that if they reveal any incidents of discrimination, the researcher is required to report the participant to the relevant authorities. As this sensitive topic may have negatively affected participants, the statement also contained contact details for the researcher and her supervisors and for an A.S. support group. At the end of the document, there is a declaration and a check box. By ticking the box, the participant is agreeing to have read the ethical statement and give consent to take part in the study.

Individuals with A.S. fall into the special group of "People with learning or communication difficulties" as outlined by the Department of Learning Sciences Ethics Committee. For this study, the researcher considered that adults with A.S. are high functioning members of society and have the mental capacity to make decisions (Atwood, 1998). Therefore, the sole consent of the individuals with A.S. without a guardian was considered to be valid for this study. The researcher outlined the above ethical considerations in a proposal which was presented to the Department of Learning Sciences Ethics Committee. After an assessment of this document, the committee gave the researcher permission to begin data collection.

### **3.3 Results of the Case Study Research**

The researcher analysed the content of the interview scripts to identify common themes among the responses. Copies of the responses were given to an independent researcher who coded these items in order to conduct a test of inter-rater reliability of the themes identified. The result of this assessment was 84% agreement in coding. The chosen themes were shown to have a high level of inter-rater reliability, thus were regarded as valid themes to use in order to group the responses for each question. The items of disagreement were discussed until a theme was agreed upon by both researchers. The themes were: demographics; aspects of A.S. in the workplace; the effects of A.S. in personnel selection; and lack of employer knowledge about A.S. The case studies were of an exploratory nature. Therefore, the findings addressed a research question, as opposed to any formal hypotheses.

#### 3.3.1 Demographic Characteristics of Respondents

**“Geraldine”** was a female job coach living in Dublin, aged 32 years at the time of the study. Her duties as a job coach included initially facilitating the integration of individuals with disabilities (including A.S.) into paid employment and continuing to support the individual throughout the integration process.

**“Paul”** was a 29 year old male with A.S. living in the UK. He had a BSc (Hons) in Computer Science, A levels in Physics and Computing and various GCSE’s, including Maths and English. Paul’s previous jobs included the analysis, development and implementation of various computer systems. Paul has enjoyed “dealing with numbers and machines” in previous jobs.

**“Ed”** was a 46 year old male also with A.S. living in the UK. He had a BA, BSc and MBA and had been employed in marketing and business development roles in the entertainment industry. Ed finds the entertainment business to be “interesting, rewarding and stimulating”.

**“Declan”** was a 41 year old male who worked as a manager of a software development team in Dublin at the time of the study. His daily duties included delegating work, checking task progress and general line management. One of the members of his team is a college graduate who has A.S.

### 3.3.2 Aspects of Asperger's Syndrome in the Workplace

**"Geraldine"** reported both positive and negative aspects of A.S. in the workplace. She advised that people with A.S. are "usually good visual thinkers, with an excellent short term memory". She spoke of one of the symptoms of A.S. in a positive light. She said, "They remember random things i.e. bus number and where their terminuses are". She also indicated that individuals with A.S. can also perform repetitive single-task jobs more effectively for longer periods of time than neurotypical individuals. For example, she listed "Restocking store shelves, gardening, cleaning, factory work, assembly line, data entry, filing, scanning, one task jobs." However, she noted that, in her experience, individuals with A.S. perform less favourably than their neurotypical colleagues in "any job which involves multi tasking." Geraldine also cited some of the sensory aspects of A.S. which can have an impact to the workplace. "They can be light sensitive" and "they also enjoy a quiet environment." She also noted interpersonal problems in people with A.S. - "They don't know the physical boundaries with other people."

**"Paul"** has found that, as an employee with A.S., has had many advantages in the workplace over other employees who did not. He listed the following advantages: "tenacity, attention to detail, focus, loyalty, precision, dedication, and reliability." Paul's perceived negative aspects of A.S. were not associated with the syndrome itself, but by other people's reactions to it. When asked what he did not like about previous jobs, he replied, "People and employers' reactions when they've discovered that I've A.S."

**"Ed"** has also found that the symptoms associated with A.S. have given him many skills that neurotypical employees do not have. These included "original and unique modes of thinking, loyalty, honesty, dedication, and an insight into areas of special interest." Ed did however conclude that, despite the advantages that people with A.S. may have in the workplace, there are some disadvantages. In his personal experience, he found that, "as always it was the non-technical considerations that were problematic: politics, inter-personal issues." Ed also listed a wide range of disadvantages that apply to A.S. in general in the workplace. The list included, "coming to terms with corporate politics, socialisation, productivity, inter-personal

relationships, sensory issues (noise, heat, uncomfortable dress), learning – may be slightly slower and take time to absorb concepts, anxiety.”

“**Declan**” feels that his organisation, which had 300 employees worldwide, with approximately 100 of these in the Dublin branch suits an employee with A.S. “A smaller organisation would affect such an employee...if we had a smaller group it would be hard to support the learning required.” However, he has noticed that the employee needs clear direction. As a graduate, the A.S. employee has an uncharacteristically strong understanding of the software lifecycle for a graduate, however, he often forgets basic checks when testing software, such as whether the process has started or if the system has crashed. Interestingly, the A.S. candidate has had to be taught the process of problem solving, and Declan admits that “some progress is being made.” He can perform a task well “once it is clearly defined and he understands it.” The employee’s working hours are fixed, his start and finishing times have been agreed, however, if some extra hours are required (which is commonplace in this industry), extra effort must be given to explain this to the A.S. employee. Despite this, the A.S. employee “works quite well” as part of a team, “is diligent and willing to learn.” However, Declan admits that “with regard to socialising he is weak”, as he does not interact socially with other members of the team. Correspondingly, if the A.S. employee is at a social event with other employees from outside of the team, “it is hard for him to enter conversations even if you introduce him.” Other members of the team have alerted Declan to the fact that “if he does not have an action to do, he will play online games or watch YouTube”, which is the only other minor problem mentioned. Other than that, “he is the same as other colleagues at the same level of experience.”

### 3.3.3 Effects of Asperger’s Syndrome in Recruitment and Selection

“**Geraldine**” has found that employer preconceptions of A.S. and characteristics of A.S. in the interview can negatively affect the chances of someone with A.S. getting a job. However, Geraldine has found that the symptoms of A.S. have negatively affected interviews. “Once they get on to a favourable topic they do not know when to stop.” In relation to communication problems in the interview, Geraldine alluded to the fact that A.S. is on the autistic spectrum and therefore each individual with A.S.

may not have the same problems. “Everyone is an individual so maybe it affects some but with others they may have no problem”

“**Paul**” agreed that A.S. negatively affects job interviews. However, he admitted “To be 100% honest, I don’t know, as I’ve never attended an interview where I didn’t have A.S. (and therefore have no reference point to compare against).” “It can feel problematic though when I need to ask for an explanation (e.g. a question has been phrased in a way that I don’t recognise).” The recent trend in recruitment and selection is to ask situational questions, which Paul found to be especially difficult. “Worse is the current ‘fashion’ of asking ‘emotion/feeling’ based questions.” People with A.S. generally have great difficulty in answering such questions. Paul thinks his anxiety would increase further as he would also be trying to conceal his A.S. from the interviewer. “Trying not to ‘let slip’ that I’m Aspergic.” “Most people have never heard of it, immediately assume the worst, and it may prejudice them against me.” Paul has felt that his communication problems can negatively affect interviews. “Avoiding eye-contact is often misinterpreted as disinterest.” In his experience, interviewers have often used humour to settle nervous candidates. This is not well suited to individuals with A.S. “Literal interpretation can also be a problem, especially if the interviewer is trying to use humour to settle a situation.” Most of the employers that Paul has dealt with have never heard of A.S., and he has found that trying to describe or explain it often has negative consequences in terms of being hired. “Mentioning that it’s ‘a form of Autism’ though can often be a killer blow (as in ‘end of chance of getting job’) as they immediately picture Dustin Hoffman, a complete lack of intelligence and every other incorrect stereotype that exists regarding Autistic Spectrum Disorders.”

“**Ed**” has found that his A.S. has negatively affected previous job interviews. “I find non-verbal language difficult, at least until I feel at ease – which in some interviews I never do. If I do feel tense I am conscious of being ‘different’ which, I am sure, means I come across slightly unconventionally.” Ed cited communication problems as the main drawback to interviews. “Conversation tends not to flow as easily as with other candidates which impacts negatively to the ‘interviewing process.’ I am sure that it is hard for anyone with A.S. to shine during what is largely an artificial process.” Ed thought that he was more likely to be hired when he connected well with

the interviewer at an early stage of the interview. He believed that some of the negative aspects of A.S. that may be apparent to the interviewer are therefore ignored. "If I do hit it off with the interviewer early on, these negatives are stifled." Ed has found previously that he had performed well during a one-to-one interview but would not perform as well when placed in a group interview. "I performed really well with the interviewer because he put me at ease immediately and it was one-to-one exchange. When I was placed in group settings later however, I came across differently (more tense, anxious and introverted)." Although it has been difficult, Ed has learned ways of overcoming communication problems in job interviews. "I try hard to smile and be cordially responsive to the interviewer early on to bring about the right type of atmosphere." "However, it is always hard and the related issues can never be overcome entirely."

"**Declan**" interviewed two other graduates on the same day as the A.S. candidate. The A.S. candidate "was the best"; he interviewed quite well, and could recall his projects and the software lifecycle, which impressed Declan. The candidate had informed the organisation's human resources department that he had A.S., which was explained to the interviewers as a form of autism. Human resources also requested that the interviewers "speak clearly". Declan noted that the candidate's "speech was somewhat slower but he was clear in much of what he said and I didn't need to repeat many questions."

#### 3.3.4 Lack of Employer Knowledge about Asperger's Syndrome

"**Geraldine**" has worked with employers and co-workers of individuals with A.S. concerning a small amount of general disability awareness training. However, "no specific A.S. training is given." Employers tend to ask Geraldine some general questions about A.S. These would be "very general questions, they seem to be asked out of interest because the majority of people have not heard of A.S., but have heard of Autism." Geraldine has found that employer preconceptions of A.S. can negatively affect the chances of someone with A.S. getting a job. Geraldine thought that employer preconceptions of people with A.S. included: "they say inappropriate things" and "they don't know where other people's private space is."

**“Paul”** has found that employers do not ask questions about A.S. He has never been asked anything “despite offering, repeatedly, to answer any questions that they may have.” He has found that the majority of his employers have never heard of A.S. “which immediately causes a problem as they simply don’t know what it means.” Paul has found it difficult to explain A.S. to employers as they may have false perceptions of the syndrome. “Recent reports in the media that have mentioned A.S. haven’t helped any as A.S. is often portrayed in a negative light or fail to highlight the positives.” “The media has done a very good job of portraying all Aspergics as being brick-wielding ‘loners’.” Paul felt that in the eyes of his employers, having a ‘disability’, “immediately limits your IQ to 50, requires that you have constant supervision, aren’t allowed out on your own, and should never be given any form of responsibility or put in a situation involving sharp objects.” Paul alluded to a need for an authoritative educational program about A.S. for employers. “Sadly when employers *do* try to find out more (via the internet etc.) they come up against the same stereotypical view of A.S. that exists, in that all Aspergics have communication problems (we don’t), need set routines (it’s all ‘degrees of flexibility’), can’t handle change etc. What they (and indeed most of the literature that exists) often fail to realise is that by its very ‘spectrum’ nature, all Aspergics are different and are individuals – we don’t all behave the same way or have the same traits (in exactly the same way that not everybody in a wheelchair is in a wheelchair for the same reason).”

**“Ed”** has found that employers do not generally ask questions about A.S. “I think that there is real ignorance and a lack of understanding about the issue.” He has never felt the need to formally disclose details of his condition to an employer. “I think it depends very much on personal circumstance.” If the organisation is supportive of disability, “I think it would provide some protection.” “If the corporate culture was aggressive or where disclosure could be viewed negatively then I think I wouldn’t divulge.”

**“Declan”** has not had any training about A.S., only a description of the general background of the A.S. employee before he was interviewed. Declan plans to rectify this as he feels he and his team “should know more” about the syndrome.

### **3.4 Discussion of the Content Analysis Findings**

Although this study provides valuable insights into A.S. in the workplace, due to the sampling technique employed, the results must be interpreted with some caution. Firstly, the study was confined to just two adults with A.S. and two adults who work with individuals with A.S. The information received was based on the perception and experiences of this specific small sample size. Secondly, the study did not account for differences in gender, age or individual differences in A.S. symptoms. Finally, the participants provided self disclosure of diagnosis of A.S. The extent and severity of each individual's A.S. was not determined by the researcher.

#### **3.4.1 Demographic Characteristics of Respondents**

The common perception of individuals with A.S. is that they have a high IQ and an intense special interest in their job or career. It was not the purpose of the researcher to explore IQ, nor was it feasible to include an IQ scale as part of a case study methodology. Therefore, the questionnaire included questions about academic qualifications, work experience, and what they liked about previous jobs.

“Paul” had a BSc (Hons) in Computer Science, A levels in Physics and Computing and various GCSE's, including Maths and English at the time he took part in the study. Paul has enjoyed “dealing with numbers and machines” in previous jobs. Baron-Cohen, Wheelwright, Stott, Bolton and Goodyer (1997) found a link between individuals with autism pursuing careers in engineering. However, Attwood (1998) advises that individuals with A.S. should not confine themselves just to careers in science, engineering and computers. “Ed” appeared to have been successful in his jobs in the entertainment industry. Although it is not an industry that would be typically associated with A.S., Ed found it to be “interesting, rewarding and stimulating.” Smith, Belcher and Juhrs (1995) also recommend that individuals on the autistic spectrum can be successful in any job, once the position utilises the individual's strengths and accommodates their weaknesses.

#### **3.4.2 Aspects of Asperger's Syndrome in the Workplace**

The research question sought to identify how A.S. affected the workplace. Hurlbutt and Chalmers (2004) found that individuals with A.S. have sensitivities to noise and lighting that affect employability. Adults with A.S. have difficulty being able to

interpret other people's feelings, understanding social rules / customs and reciprocating social interactions (Attwood, 1998). The workplace can cause the individual to have mental health issues such as anxiety (Attwood, 1998; Bashe & Kirby, 2001). These findings were supported by the case studies. "Geraldine" noted that "they can be light sensitive", "they also enjoy a quiet environment", and "they don't know the physical boundaries with other people." "Ed" said "as always it was the non-technical considerations that were problematic: politics, inter-personal issues." He also found that "coming to terms with corporate politics, socialisation, productivity, inter-personal relationships, sensory issues, learning, and anxiety" were all factors of A.S. which he found to be problematic in the workplace.

Hurlbutt and Chalmers (2004) found that individuals with A.S. have difficulty in finding employment in a job that matches their ability levels. "Geraldine" noted that individuals with A.S. can perform repetitive, single-task jobs quite effectively for long periods of time. Examples of such jobs were, "Restocking store shelves, gardening, cleaning, factory work, assembly line, data entry, filing, scanning, one task jobs." These jobs do not seem to match the ability of the individuals with A.S. who took part in the study. However, while "Declan" did not state specific qualifications of his A.S. employee, he noted that he was a graduate. Therefore, it can be presumed that the employee has a third level qualification, which is matched to his role as part of a software development team. Similarly, Declan is willing to adapt the A.S. employee's job description in order to suit his needs, "we will have a mid-year review and we will present him with a role in software testing rather than development."

The majority of literature available focuses on the negative aspects of A.S. in the workplace. "Paul" said that, in relation to employment, people with A.S. have "tenacity, attention to detail, focus, loyalty, precision, dedication, and reliability" and "Ed" thought they have "original and unique modes of thinking, loyalty, honesty, dedication, and an insight into areas of special interest." However, the literature that discusses the advantages of A.S. in the workplace seems to also refer to downsides of these advantages. For example, while they can be focused, attentive, precise and loyal, they can sometimes be resistant to change (Meyer, 2001). They may not understand why others are not as dedicated as them and can often report co-workers if they feel they are not performing at a similar level (Attwood, 1998; Meyer, 2001). In

contrast, “Declan” recalled that his A.S. employee often gets distracted if he has no work at hand, which has prompted other members of the team to report him.

#### 3.4.3 Effects of Asperger’s Syndrome in Recruitment and Selection

The research question sought to investigate how A.S. affects the recruitment and selection processes.

Asperger’s Syndrome is on the autistic spectrum; therefore, no two individuals with A.S. are guaranteed to be similar. This point was addressed by “Geraldine.” With regard to employment, adults with A.S. often stumble at the first hurdle- the job interview. They do not have the skills required for this process (Berney, 2004). These skills include understanding cues / nonverbal body language and reciprocating social interactions. These claims were supported by the participants. For example “Paul” has found that “literal interpretation can also be a problem, especially if the interviewer is trying to use humour to settle a situation.” “Ed” has found non-verbal language difficult in job interviews. He cited communication problems as the main drawback to interviews. “Conversation tends not to flow as easily as with other candidates which impacts negatively to the ‘interviewing process.’ I am sure that it is hard for anyone with A.S. to shine during what is largely an artificial process.” Hurlbutt and Chambers (2004) found that individuals with A.S. are often aware of the deficits in their social interactions that can affect their employability but are often unable to change their behaviour. However, “Ed” has learned that if he is polite and responsive, it brings about a positive atmosphere which may help the interviewer to ignore any A.S. symptoms. Similarly, “Declan” found that out of the three interviews which were conducted to fill a position, the A.S. candidate “was the best.” However, Declan cited communication difficulties as a minor problem in the interview with the A.S. candidate. Declan had been alerted to this potential problem, and accommodated this special need by speaking slowly and repeating questions if needed, although he “didn’t need to repeat many.”

McMahon (2002) mentioned other practices associated with the employment interview which would negatively affect A.S. candidates. The interview creates an equal opportunity for candidates to present themselves. However, due to the social deficits associated with A.S., different types of selection interview can affect the

performance of someone with A.S. differently. For example, “Ed” performed well during one to one interviews but when placed in group settings, “I came across differently (more tense, anxious and introverted). It is possible that these barriers to employment, at the beginning of the process explains why the Economic and Social Research Institute (2007) found that individuals with disabilities are 42% less likely to be in employment than those without disabilities.

#### 3.4.4 Lack of Employer Knowledge about Asperger’s Syndrome

The research question also outlined an investigation into employer knowledge of A.S. An additional barrier to employment for those with A.S., aside from the symptoms of the syndrome itself is the external barrier of employer attitudes (Hurlbutt and Chalmers, 2004). Myles and Simpson (1998) believed there to be an enormous lack of understanding regarding A.S. which is a direct result of a lack of information. As a job coach, “Geraldine” is required to work with employers to facilitate the employee into the workplace. However, apart from a small amount of general disability awareness training, “No specific A.S. training is given.” Equally, “Declan” had not received any training either.

“Paul” had found that employers have heard of autism but not of A.S. “Declan” was informed that his A.S. candidate had a “form of autism.” While A.S. is not entirely different to autism, Gillberg (2002) recommends that autism can be classified into those that are “low-functioning”, “middle-functioning” and “high-functioning.” Individuals with A.S. are generally considered to belong to the high-functioning category. However, in mentioning A.S. as a form of autism “Paul” has found that in the eyes of employers, it “immediately limits your IQ to 50, requires that you have constant supervision, aren’t allowed out on your own, and should never be given any form of responsibility or put in a situation involving sharp objects.” Contrary to Paul’s perception, “Declan” did not allow any biases to affect the interview of the A.S. candidate, as he was eventually hired, although it should be noted that he had very little knowledge about any disorder on the autistic spectrum. Paul has also found that those employers who have heard of A.S. generally have false perceptions of the syndrome which are related to misconceptions of low-functioning autism. He also thought that the media does not highlight the positives of A.S.

Both “Ed” and “Paul” found that employers do not ask questions about A.S. Unger (2002) investigated four factors in employer attitudinal research: disability of candidate; previous experience with workers with disabilities; size of employer; and sector of business or industry. The researcher did not investigate employer experience with disabilities or size of employer. Employers in larger organizations are more likely to include individuals with disabilities in the workforce as they have a wider variety of jobs available, greater personnel and economic resources (Blanck, 1998; Collington, 1986; Kemp, 1991). “Ed” noted that in the UK, employees can have extra protection from the Disability Discrimination Act (legislation in the UK which makes it illegal to discriminate against those with a disability).

#### 3.4.5 Implications of the Research

The findings of these case studies suggest that there is a need for more support in relation to A.S. in the workplace. This support should aid jobseekers who have A.S. to help prepare for employment interviews, and assist employers with information about disability and perhaps different recruitment and selection methods.

The findings indicated that employer attitudes are a greater barrier to employment of individuals with A.S. than the symptoms of the condition itself. Employer attitudes toward the hiring of individuals with A.S. will be further explored by the researcher.

#### 3.4.6 Limitations

As mentioned previously, participant characteristics were the main limitations to this study. The researcher found it difficult to recruit individuals with A.S. for the study. Many messages were received from individuals with A.S. through the A.S. forums. However, these messages contained requests for more information about the topic, with only four participants agreeing to take part. One of the respondents withdrew from the study and one was not suitable to take part and was therefore omitted. The low response rate meant that the researcher could not account for differences in gender, age or individual differences in A.S. symptoms. The participants provided self disclosure of diagnosis of A.S. It has been reported that some adults with A.S. consider themselves to have A.S. or high functioning autism but have never been formally diagnosed (Johnson, 2005; Schneider, 1999). The extent and severity of each individual’s A.S. was not determined by the researcher. As the main focus of the

study concerned communication in the employment interview, participants who had specific communication or interpersonal deficits would have been preferred. Similarly, with regard to reliability, the individuals A.S. who took part in the case studies have ended up in employment are potentially of the higher functioning A.S. sufferers, and so may not be indicative of all people with A.S.

#### 3.4.7 Suggestions for Further Study

Further study would be likely to be beneficial to this area. A more effective use of sampling could be employed, such as recruiting participants by meeting them face to face (for example, at a support group meeting). This could increase the number of participants and give a more representative sample.

Further examination of the processes involved in the employment interview could be examined- such as performance in one to one versus group or panel interviews. Other aspects of A.S. in the workplace could also provide interesting results, such as unemployment, job success and specific recommendations by individuals with A.S. to improve the workplace.

#### 3.4.8 Conclusion

Studies regarding adults with A.S. are appearing in psychological literature more and more frequently. However, the topic of employment within this area is underrepresented. Perhaps the sampling issues that the researcher had are a factor in many other researchers' studies, and could therefore explain the lack of similar research. The main benefit of this study, aside from adding to a small number of similar studies is that these case studies were used by the researcher in a subsequent study (Refer to Chapter Four). The information in the case studies was used to compile a persona of someone with A.S. Participants in the subsequent study had to choose a preferred candidate between the A.S. persona and a neurotypical persona according to who is likely to be hired and who is considered to be most intelligent. It is apparent from this study that there is a lack of knowledge about A.S. among employers, which further justifies the need to investigate the relationship between implicit theories of intelligence and the employability of A.S. candidates. This relationship will be investigated further in the next chapter.

## **Chapter 4:**

# **Identifying Desirable Characteristics in** **Candidates**

#### 4.1 Introduction

Asperger's Syndrome is characterised by exceptional cognitive abilities, paired with social deficits. Traditionally, cognitive characteristics were measured in the recruitment process (Gunnigle, Heraty & Morley, 2006). However, social characteristics are becoming more important in recruitment and selection (Fox & Spector, 2000) and in the workplace, especially with regard to teamwork (Daly, 2008). An understanding of employers' desirable candidate characteristics, whether cognitive or social, would give an indication of how desirable an A.S. candidate is compared to a neurotypical. In addition to this, ratings of an A.S. and a neurotypical candidate's employability and perceived intelligence, compared to desirable characteristics would give an indication of the effects of cognitive and social characteristics on employability and perception of intelligence. These factors have led to the development of the following hypotheses:

1. Employers who perceive social characteristics in candidates desirable are more likely to hire a neurotypical candidate than an A.S. candidate.
2. Employers who perceive cognitive characteristics in candidates more desirable are more likely to hire a candidate with A.S. than a neurotypical candidate.
3. Employers who perceive social characteristics in candidates desirable are more likely to consider a neurotypical candidate instead of an A.S. candidate as intelligent.
4. Employers who perceive cognitive characteristics in candidates desirable are more likely to consider a candidate with A.S. as intelligent.

This chapter investigates employers' desirable candidate characteristics. To carry out this research, a survey was distributed to a select sample of employers from medium to large organisations in the fields of science, information technology (I.T.) and engineering. In this chapter, the detailed methodology of the study is initially discussed. The data obtained was primarily qualitative, and was analysed using content analysis. The methodological choice of a qualitative study was made because there was no standardised measure evident for investigating employer's desirable candidate characteristics. Also, due to the little research available regarding employers' implicit theories of intelligence, there was a lack of clarity in relation to the key theoretical issues for the subsequent study. The themes which emerged from the content analysis are presented in the results section, along with demographic

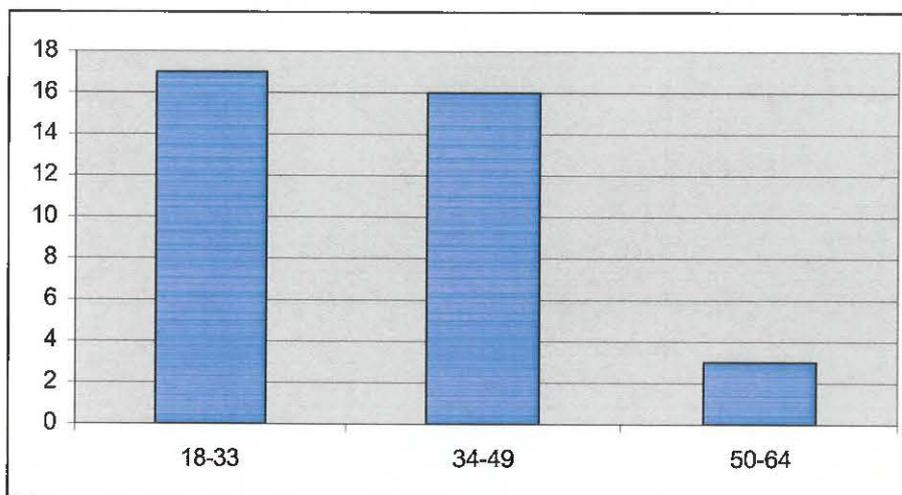
details and other interesting findings from the questionnaire. This is followed by a discussion of the importance of these findings.

## 4.2 Methodology

### 4.2.1 Participants

Purposive sampling was used to recruit participants. The researcher sought employers from medium to large organisations, with 50 or more employees. These organisations were in the fields of I.T., science or engineering, with the majority of employees having degrees in these areas. Employer, in this study, is defined as any individual who takes part in the interview process of recruitment and whose recommendations results in the individual being employed or rejected.

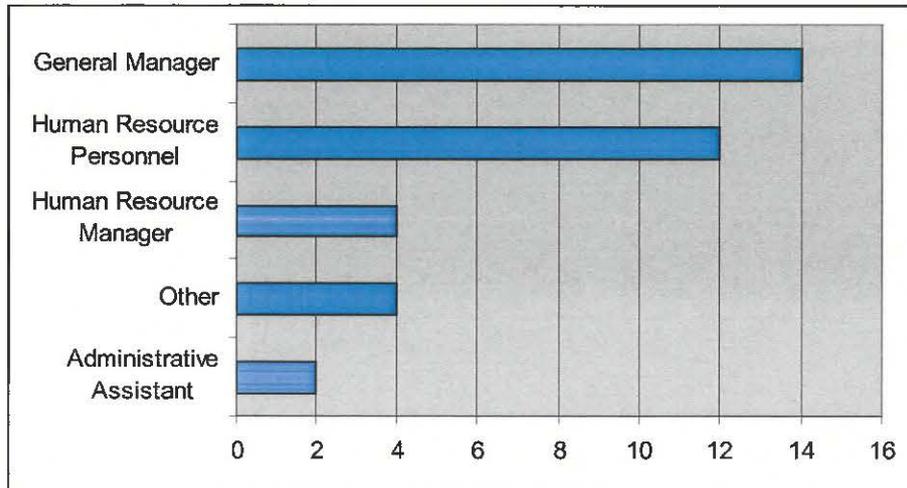
There were 36 respondents: 18 males and 18 females. The age categories were 18-33, 34-49, 50-64, and 65+. Figure 4.1 below contains a graphical representation of the numbers of respondents in each category.



**Figure 4.1: Age Distribution of Respondents**

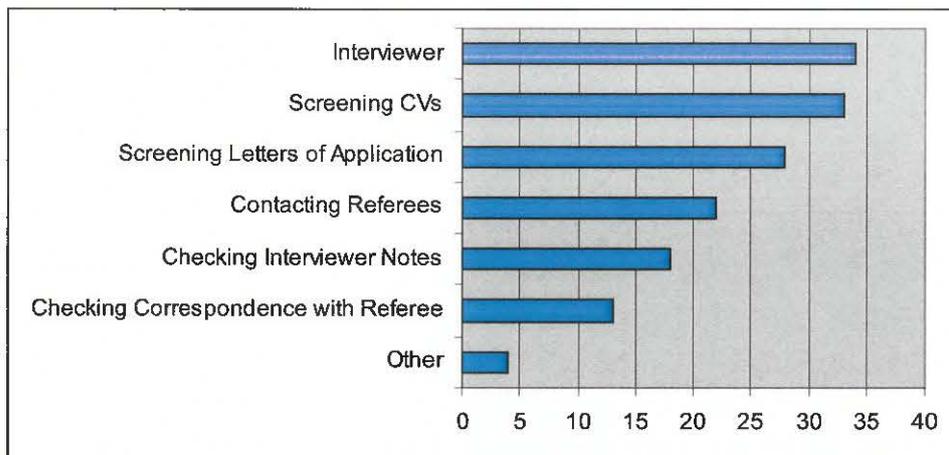
In total, 149 individuals from the researcher's database were contacted to take part in the study. The response rate was 24.1%. Employers were selected from a recruitment website and a contact database. These employers were contacted first via email to ensure that they have the expertise that is needed to proceed with participation in the study. Each participant was involved in the recruitment process in their organisations. Roles of respondents included general managers, human resource personnel, human

resource managers, and administrative assistants, and other relevant roles. “Other” respondents included two individuals in education who based their answers on previous industry experience, an operations director and a recruitment consultant. The distribution of respondents in each role is displayed in Figure 4.2 below.



**Figure 4.2: Job Titles of Respondents**

Respondents were personally involved in the following aspects of recruitment: interviewing; screening C.V.’s; screening letters of application; contacting referees; checking interviewer notes; and checking correspondence with referees. “Other” roles included assessment centres, preparing job specifications, selecting interview criteria and submitting recommendations of internal candidates. This data is represented on Figure 4.3 below.



**Figure 4.3: Aspects of Recruitment Involving Respondents**

#### 4.2.2 Materials

A pilot study was carried out to test the appropriateness of the contents of the Identifying Desirable Characteristics in Candidates Questionnaire (IDCCQ). It is a non-standardised measure devised by the researcher (See Appendix E). Initially, 3 participants (n=3) completed the pilot study. A number of minor amendments were made to the aforementioned questionnaire based on the feedback received from the pilot participants. This feedback recommended re-wording and more specific language for clarity. The IDCCQ is a 17 item, 3-part online questionnaire. The items include open and closed questions, ranking, and Likert scales.

Part 1- "Background Information" contains items regarding age, gender, role in organisation, the importance of the interview and important characteristics in an employee. Part 2- "Ranking of Personas" requires the participant to choose a preferred candidate from a pair of personas. These personas were based on studies by Sternberg (1985), Hurlbutt and Chalmers (2004), and on the data collected from the Case Studies (Chapter Three). The personas describe a neurotypical person and an individual with A.S. The A.S. persona contains an equal amount of positive and negative aspects of A.S. Participants were asked to rank the personas according to two criteria: who is likely to be hired and who is considered to be most intelligent. The participants were also asked to state why their highest ranked candidate was selected for employment and why their chosen candidate is more intelligent than the alternative candidate. Lastly, in Part 3- "Recruitment of People with Asperger's Syndrome", the participants were presented with a description of A.S. and asked for advantages and disadvantages of employing someone with A.S. The consent form can be found in Appendix F.

#### 4.2.3 Procedure

The participants were contacted via email. Initially, a pre-notice was sent to contacts from a database compiled by the researcher. This informed recipients that they would be receiving a link to a questionnaire in the following days. Then, the researcher emailed a cover letter with a link to the online questionnaire to the prospective respondents. Participants were informed that the study was about employers' ideal characteristics in employees and the selection processes used in recruitment. It was the researcher's intention not to reveal the A.S. angle of the study in the brief in order

to obtain honest, unbiased answers from respondents. The participants were given a personal identification number to access the questionnaire. This also allowed the researcher to monitor responses from the database. Non-respondents were sent a final notice about the study in the week following the initial contact. Appendix G contains reproductions of the aforementioned emails.

Participants were assured of their anonymity and confidentiality and that they were free to decline from answering any question and to withdraw from the study at any stage. They were also informed that they should not disclose any incidents of discrimination against candidates, as the researcher is required to report such incidents to the authorities. At the final part of the questionnaire, participants were shown the title of the study and its aims. They were then given a description of A.S. and asked two further questions regarding the intelligence and employability of an A.S. candidate. Respondents were then thanked for their participation and also advised of contact details for an A.S. helpline and support group if needed.

#### **4.3 Results**

This section contains an analysis of responses to the Identifying Desirable Characteristics in Candidates Questionnaire (Appendix E). The measure contained both closed and open-ended questions which generated quantitative and qualitative data respectively.

The descriptive statistics were deployed in relation to the quantitative data. The statistically analysed data was summarised and presented graphically using bar and pie charts. With regard to the qualitative data, responses to open-ended questions were analysed using content analysis by theme. Copies of the responses were given to an independent researcher who coded these items in order to conduct a test of inter-rater reliability of the themes identified. The result of this assessment was 82% agreement in coding. The chosen themes were shown to have a high level of inter-rater reliability, thus were regarded as valid themes to use in order to group the responses for each question. The items of disagreement were discussed until a theme was agreed upon by both researchers. The qualitative data was summarised and presented using content analysis by theme and visual presentations (tables and bar charts).

In addition to the analyses relating to the hypotheses, the researcher also tested to examine the influence of other variables. The additional analyses follow the analyses of the hypotheses.

#### 4.3.1 Analysis of Desirable Characteristics and Employability

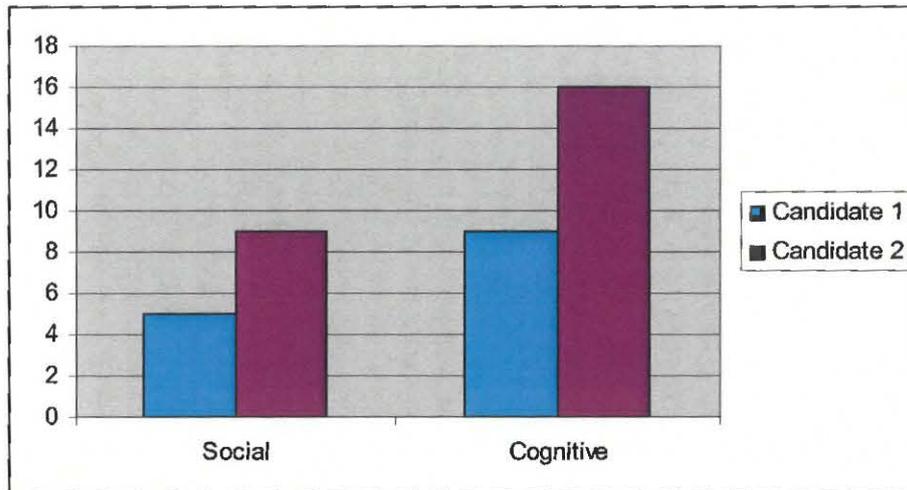
The researcher investigated a relationship between the type of desirable candidate characteristic and a) which candidate was more employable and b) which candidate was considered most intelligent. The themes that were identified in the content analysis of the desirable candidate characteristics were categorised into four groups for statistical analysis. Each respondent included at least one social or cognitive characteristic in their list of desirable characteristics. Therefore, the categories are: social; cognitive; and social and cognitive.

Respondents were assorted into groups according to the following criteria: those who rated social characteristics highly and selected the A.S. candidate for employment; those who rated cognitive characteristics highly and chose the A.S. candidate for employment; those rated social characteristics highly and selected the neurotypical candidate for employment; those who rated cognitive characteristics highly and chose the neurotypical candidate for employment. This data is presented in Table 4.1 below.

**Table 4.1: Employability and social and cognitive characteristics**

	<b>A.S. Candidate</b>	<b>Neurotypical Candidate</b>
<b>Social</b>	n=5	n=9
<b>Cognitive</b>	n=9	n=16

Figure 4.4 overleaf shows that the neurotypical candidate (Candidate 2) was perceived to be more employable than the A.S. candidate (Candidate 1) Cognitive characteristics were also favoured over social characteristics in both candidates.



**Figure 4.4: The importance of social and cognitive characteristics in gaining employment**

A chi-square analysis of the ratings of employability and the desirable candidate characteristics provided the following data.

There was no relationship between a candidate's cognitive characteristics and employability:  $\chi^2 (2, N=29) = .287, p = .592$ .

There was also no relationship between a candidate's social characteristics and employability:  $\chi^2 (2, N=29) = .056, p = .812$

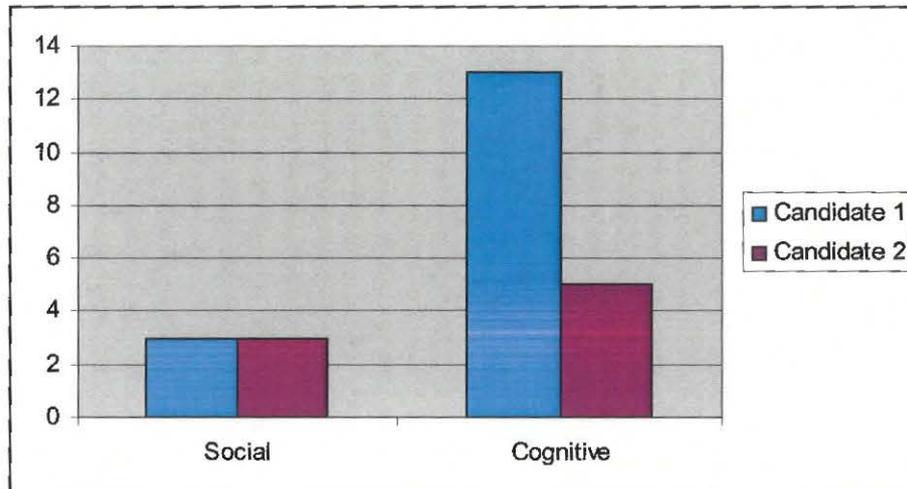
#### 4.3.2 Analysis of Desirable Characteristics and Intelligence

Similarly, respondents were assorted into groups according to the following criteria: those who rated social characteristics highly and perceived the A.S. candidate to be more intelligent; those who rated cognitive characteristics highly and perceived the A.S. candidate to be more intelligent; those rated social characteristics highly and perceived the neurotypical candidate to be more intelligent; those who rated cognitive characteristics highly and perceived the neurotypical candidate to be intelligent. This data is presented in Table 4.2 below.

**Table 4.2: Perceived intelligence and social and cognitive characteristics**

	A.S. Candidate	Neurotypical Candidate
<b>Social</b>	n=3	n=3
<b>Cognitive</b>	n=13	n=5

Figure 4.5 below shows a graphical representation of this data. Candidate 1 has A.S., and Candidate 2 is the neurotypical.



**Figure 4.5: Using social and cognitive characteristics to define intelligence**

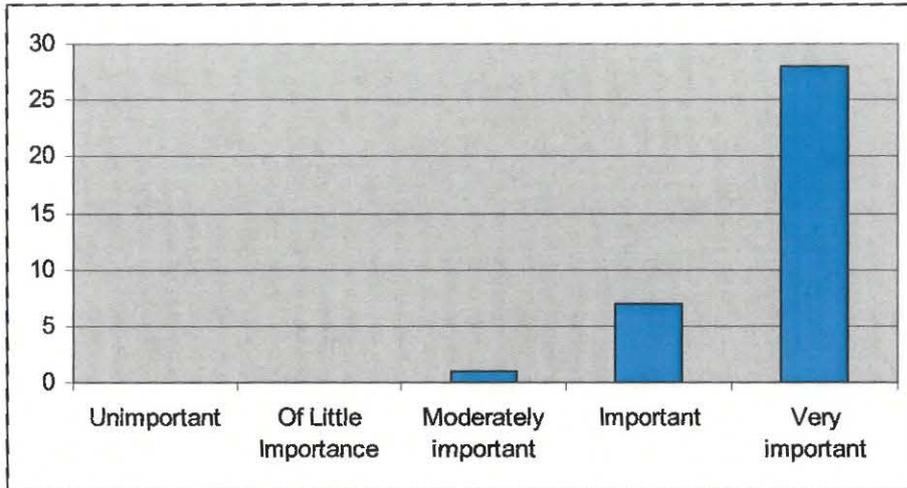
A chi-square analysis of the ratings of intelligence and the desirable candidate characteristics provided the following data:

There was no relationship between a candidate's cognitive characteristics and perceived intelligence:  $\chi^2 (2, N=19) = .377, p = .539$ .

There was also no relationship between a candidate's social characteristics and perceived intelligence:  $\chi^2 (2, N=19) = 2.537, p = .111$ .

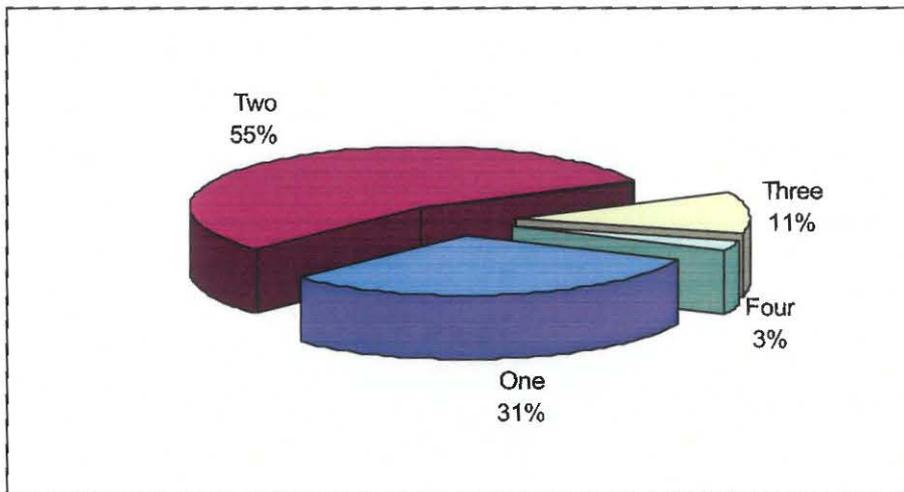
#### 4.3.3 The Use and Prevalence of the Interview in Recruitment

The sample considered the interview to be a useful and important phase of recruitment. While C.V./application form is the most common initial screening tool, the whole sample regarded the interview an important part of the recruitment process. The majority of responses on the 5 point Likert scale ranging from "Unimportant" to "Very Important" were on the positive side. Figure 4.6 overleaf illustrates this data.



**Figure 4.6: The importance of the interview in the recruitment process**

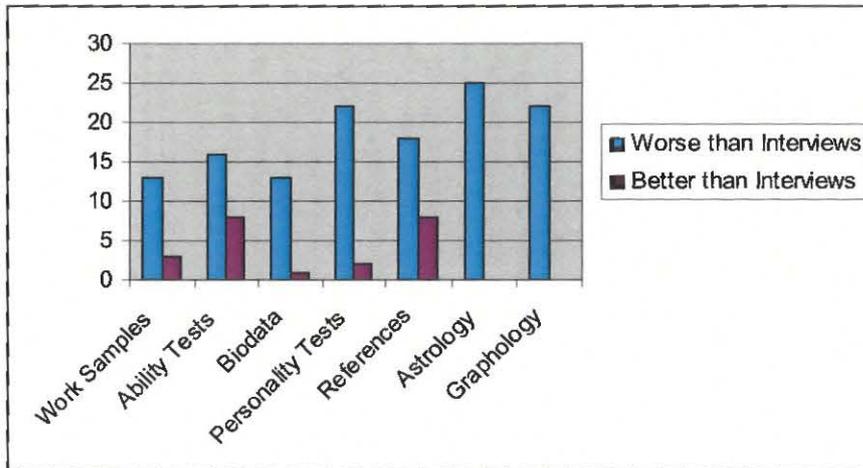
The majority of respondents (n=34) said that every candidate who had been hired over the past six months in their organisation had been interviewed as part of the recruitment process. During the recruitment process, organisations typically tend to interview job candidates more than once. Figure 4.7 below illustrates that the majority of job candidates are interviewed twice.



**Figure 4.7: Percentage of organisations who interview candidates one, two, three and four times**

The respondents were asked to compare other methods of screening to the interview. All screening methods were considered inferior to the job interview, with methods such as bio data, astrology and graphology receiving little or no positive ratings.

Ability tests and references were rated positively by some participants, but the overall result was not as high as the negative ratings. Figure 4.8 below displays this data.



**Figure 4.8: Comparing other screening methods to the interview**

#### 4.3.4 Advantages and Disadvantages of the Job Interview

The two open-ended questions which provided the data for this section are: “What advantages do employees have in taking part in an interview as opposed to being screened by any of the methods mentioned above?” and “What are the disadvantages?” The results of the content analysis revealed two main themes regarding the respondents’ perceived advantages of taking part in a job interview. Table 4.3 (below) shows the two identified themes and examples of responses for each theme. 74% (n=29) of the responses fit to the “opportunity to explain/express” theme, and 26% (n=10) fit the “gain a feel for the organisation” theme.

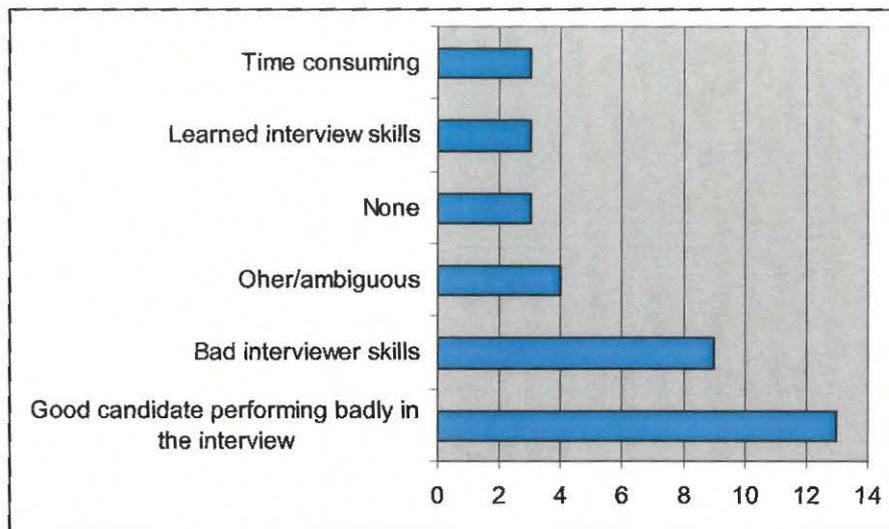
**Table 4.3: Themes for advantages to taking part in a job interview**

Theme	Example
Opportunity to explain/express themselves	“Can sell self and give full explanations”, “Interviewees have a chance to present what they can bring to the position”
Gain feel for organisation	“Get a feel for how the person would fit in/not fit in within the organisation”,

Content analysis revealed six themes regarding the respondents' perceived disadvantages to taking part in an interview. Table 4.4 (below) shows the six identified themes and examples of responses for each theme. The "good candidates performing badly in the interview" theme was the main disadvantage to the job interview. Other themes included "bad interviewer skills", "learned interview skills", "time consuming". Some respondents said there were no disadvantages to the job interview, and others stated ambiguous viewpoints. The number of responses for each disadvantage theme is illustrated in Figure 4.9 overleaf.

**Table 4.4: Themes for respondents' perceived disadvantages of taking part in an interview**

<b>Theme</b>	<b>Example</b>
Learned interview skills	"Interviews are a skill which can be learned, as such an interviewee has the ability to manipulate interviews", "People can 'learn' answers"
Bad interviewer skills	"Subjectivity. Bias", "It can be full of perception of bias depending on the person interviewing and if they have been properly trained"
Good candidate performing badly in the interview	"Candidates have excellent technical ability but not perform/sell themselves in interview", "People are not at ease so may not portray themselves as what they should"
Time consuming	"The amount of time involved can appear to be a drawback but you get what you put in", "Can be time consuming"
Other/ ambiguous	"Limited in assessing technical ability"



**Figure 4.9: Number of responses for each disadvantage theme**

#### 4.3.5 Employability of a Candidate with Asperger's Syndrome

Respondents were presented with a pair of personas: Candidate 1 is the A.S. persona; and Candidate 2 is the neurotypical persona. Respondents were asked to select a candidate which they would be most likely to hire. More employers perceived the neurotypical candidate as more employable (n=18) than the A.S. candidate (n=12). Participants were then asked to state why they had made that particular choice. Responses were analysed using content analysis and separated according to which candidate was selected for employment. First, Table 4.5 (below) displays the themes that emerged from analysis of responses of those who selected the A.S. candidate for employment. The majority of respondents who selected the A.S. candidate for employment did so because of the positive characteristics of A.S. (n=10), while others said that the neurotypical candidate was not suitable (n=2).

**Table 4.5: Responses of employers who selected the A.S. candidate 1 for employment**

Theme	Example
Positive A.S. characteristics	“Dependable and ability to create publishable articles”, “Highly focused and dependable”
NT candidate is not suitable	“Candidate 2 is not for the company”, “Second candidate is easily distracted and not punctual”

Secondly, Table 4.6 (below) displays the content analysis themes from responses of those who selected the neurotypical candidate for employment. Responses cited the negative characteristics of A.S. as the reason why they selected the neurotypical candidate for employment (n=9), while others felt that the neurotypical candidate was better than the A.S. candidate (n=5). However, some respondents who chose the neurotypical candidate did not state why they did so (n=4).

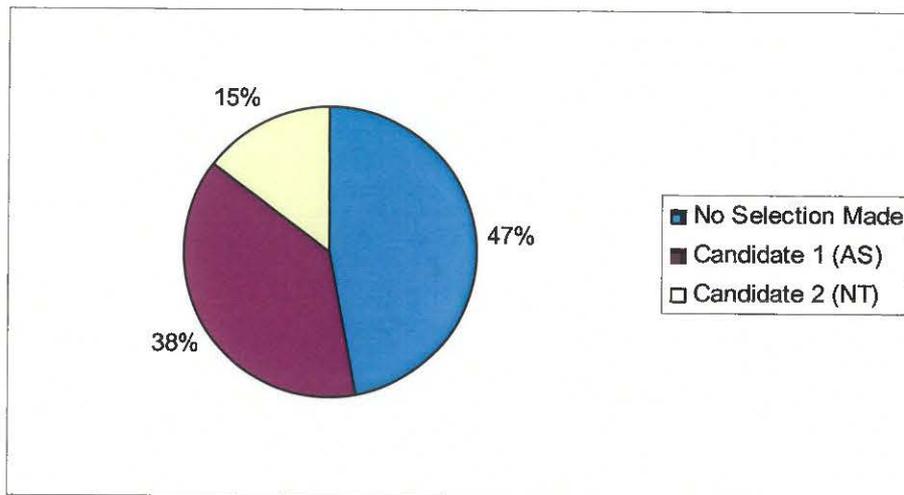
**Table 4.6: Responses of employers who selected the neurotypical candidate for employment**

Theme	Example
Negative A.S. characteristics	“In my organisation I rate inter-personal skills above punctuality. It’s easier for people to improve on poor punctuality than to gain/improve people skills”, “Not able to interact socially or take on multiple tasks would be a blocker”
Candidate 2 is better	“Although there are clearly some issues as to how this individual does their work, the fact is that they get it done. Being able to manage a large workload suggests flexibility. The fact that they get easily distracted suggests that they need to be challenged in their work.”

Similarly, some respondents who completed this section of the survey did not choose a candidate at all (n=4). Many felt they could not select a candidate based on the limited information provided or could not see a difference between the two candidates.

#### 4.3.6 Perceived Intelligence of a Candidate with Asperger’s Syndrome

Respondents were then asked who they considered to be most intelligent. Similarly, responses were analysed using content analysis and separated according to which candidate was selected as most intelligent. The majority of respondents said that the A.S. candidate was the most intelligent (n=13), although some selected the neurotypical candidate (n=5). However, almost half of the respondents did not choose a candidate but explained why (n=16). Figure 4.10 overleaf illustrates this data.



**Figure 4.10: Percentage of responses were considered to be most intelligent**

Table 4.7 (below) displays the themes and examples of responses given by employers who regarded the A.S. candidate as most intelligent. Respondents cited knowledge or focus of the A.S. candidate as the reason why they selected it as the most intelligent (n=8), with other reasons also cited (n=2).

**Table 4.7: Themes and examples of responses who regarded the A.S. candidate as most intelligent**

Theme	Example
Knowledge/focus	“Highly focused knowledge and published articles”, “has the ability to be ‘expert’ within a focused discipline”
Other	“Candidate 1 has more academic intelligence but Candidate 2 has more emotional intelligence”, “Academically there appears to be little to choose between them”

Table 4.8 (overleaf) shows themes and responses from those who selected the neurotypical candidate as most intelligent. Respondents cited interpersonal or social skills (n=4), and another cited multi-tasking (n=1). However, almost half of respondents did not choose a candidate (n=16), as they felt they could not answer the question based on the limited information, while some felt that neither candidate is more intelligent than the other.

**Table 4.8: Themes and responses from those who selected the neurotypical candidate as most intelligent**

Theme	Example
Multitask	“Can focus on more than one task at a time”
Interpersonal/Social skills	“Combines technical left brain skills with people right brain skills”, “Good social intelligence”, “See Gardner’s Theory of Multiple Intelligences”, “If they don’t know something they will ask, not consult a book”

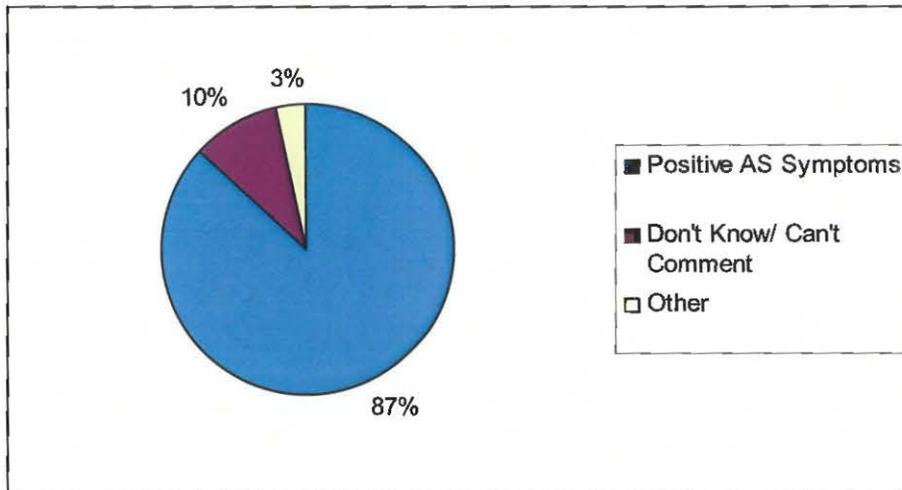
4.3.7 Advantages and Disadvantages of Employing Someone with Asperger’s Syndrome

Employers were presented with a description of A.S. and asked what the advantages and disadvantages of employing someone with A.S. would be. The responses were analysed using content analysis and the findings are shown below. Table 4.9 below shows the respondents’ perceived advantages of employing an individual with A.S.

**Table 4.9: Advantages of employing an individual with A.S.**

Theme	Example
Positive A.S. Symptoms	“Loyalty to company”, “Focused on workload, reliable, principled”
Don’t know/ can’t comment	“Not familiar enough with A.S.”, “I don’t know enough about the subject”
Other	“Diversity”

Figure 4.11 (overleaf) shows that the majority of respondents cited the positive A.S. symptoms as the main advantage of employing someone with A.S. (n=26). A small number felt that they could not comment (n=3), and a further participant cited diversity in the workforce (n=1).

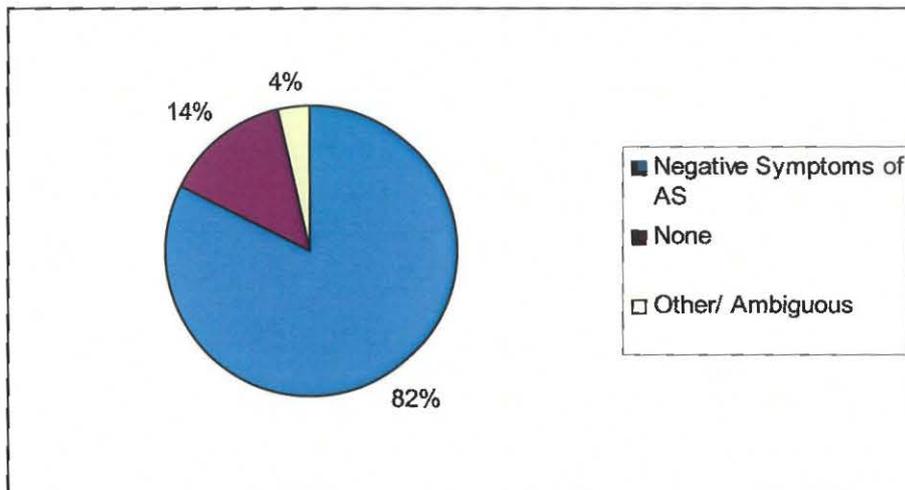


**Figure 4.11: Percentage of responses as to the advantages of employing someone with A.S.**

Table 4.10 (below) shows the respondents' perceived disadvantages of employing someone with A.S. The majority of respondents cited negative A.S. symptoms as the main disadvantage to employing someone with A.S. (n=23). However, some respondents felt that there were no disadvantages to employing someone with A.S. (n=4). Figure 4.12 overleaf illustrates these findings.

**Table 4.10: Disadvantages of employing an individual with A.S.**

Theme	Example
Negative A.S. Symptoms	"Difficulty working in teams", "Not good dealing with people on a social level"
None	"None", "None, everybody is equal in my company"
Other/ambiguous	"They need to prepare the candidate and the workplace for each other"



**Figure 4.12: Percentage of responses showing perceived disadvantages of employing someone with A.S.**

#### **4.4 Discussion**

This section will discuss the findings of this study in relation to the literature. This discussion will begin with the findings in relation to the hypotheses, followed by other interesting findings which emerged. However, it should be noted that due to the low response rate, some of these findings should be interpreted with caution. Nonetheless, the rich qualitative data provided a lot of interesting information. The discussion continues with an outline of the limitations and implications of the study, concluding with recommendations for future study.

##### 4.4.1 Analysis of Desirable Characteristics, Employability and Intelligence

The majority of respondents chose the neurotypical candidate for employment. However, the number of responses was only marginally larger than those who chose the A.S. candidate for employment. Also, employers found the “positive” A.S. characteristics such as knowledge and focus to be good qualities. However, as the findings from previous research would predict, the majority of employers chose the neurotypical candidate for employment. The majority of those who selected the neurotypical candidate did so because they felt that the “negative” A.S. characteristics such as a lack of interpersonal skills to be problematic.

The majority of respondents said that neither candidate was more intelligent. This could be due to the need for clearer, more specific candidate descriptions. The A.S.

candidate was deemed intelligent due to the information provided about the knowledge/focus of the candidate. Those who selected the neurotypical candidate as most intelligent explained that their decision was based on social or interpersonal factors. Those who chose neither candidate felt that they could not judge the intelligence of an individual with the limited candidate information provided. Similarly, employers also cited positive characteristics of A.S. when explaining why they thought the A.S. candidate was more intelligent than the NT candidate. However, a similar number of employers also cited negative characteristics of A.S. to be problematic. These findings support the literature which states that implicit theories of intelligence need further research (Dweck, Chiu & Hong, 1995). Respondents who, as employers assess candidates according to their own theories of intelligence (Carey & Smith, 1993; Dweck & Leggett, 1988; Epstein, 1989; Wittenbrink, Gist & Hilton, 1993) could easily pick out intelligent behaviours from the candidate descriptions but many struggled to explain why they thought the candidate was intelligent.

It was not possible to quantitatively test hypotheses due to the low number of responses toward the latter part of the questionnaire. It was hypothesised that employers who find social characteristics in candidates more desirable are more likely to hire a neurotypical candidate than a candidate with A.S. Although the chi-square analysis did not find a statistical relationship between these aspects, it is interesting to note that majority of respondents who rated social characteristics highly selected the neurotypical candidate for employment. It is possible that the reason why the neurotypical candidate was considered more employable than the A.S. candidate is due to the social deficits associated with A.S., outlined by Atwood (1998). Similarly, the literature has also found that emotional intelligence is becoming increasingly more relevant in the workplace (Daly, 2008; Fox & Spector, 2000), which could also explain employers' preference for social characteristics in employees.

It was hypothesised that employers who find cognitive characteristics in candidates more desirable are more likely to hire a candidate with A.S. than a neurotypical candidate. Again, there were not enough responses to allow for a statistical relationship from the chi-square analysis. However, in contrast to the hypothesis, the majority of respondents who rated cognitive characteristics highly chose the neurotypical candidate for employment. Individuals with A.S. can have many

cognitive advantages over neurotypicals (Howlin & Mawhood, 1996), which have obvious benefits in the workplace (Smith, Belcher & Juhrs, 1995).

Similarly, due to the low number of responses, it was not possible to accurately test relationship between social and cognitive characteristics and intelligence using a chi-square analysis. It was hypothesised that employers who find social characteristics in candidates more desirable are more likely to consider a neurotypical candidate as more intelligent than a candidate with A.S. Nonetheless, an equal low number of responses rated social characteristics highly and chose the A.S. candidate and the neurotypical candidate respectively. It was also hypothesised that employers who find cognitive characteristics in candidates more desirable are more likely to consider a candidate with A.S. as more intelligent than a neurotypical candidate. In keeping with the hypothesis, the majority of respondents who rated cognitive characteristics highly selected the A.S. candidate as more intelligent than the neurotypical candidate. Although not statistically relevant, this finding suggests that social characteristics do not play a role in employers' implicit theories of intelligence.

#### 4.4.2 The Use and Prevalence of the Interview in Recruitment

In keeping with previous research, the importance of the interview was apparent in this study (Posthuma, Morgeson & Campion, 2002). Again, due to the low number of responses, the results should be interpreted with some caution. While it was generally not the initial screening method used by respondents, it was regarded as important by the majority of respondents. The majority of employers surveyed said that the majority of job candidates are interviewed 2-3 times before a final decision about recruitment is made. The interview compared well to other methods commonly used in recruitment despite previous findings to the contrary. A study by Anderson and Shackleton (1993) found that biodata, personality tests, assessment centres for performance, ability tests and work samples are more accurate predictors of future behaviour in employment than unstructured interviews. Structured interviews were found to be more accurate than all of the aforementioned selection methods, however, assessment centres for promotion were found to have the highest predictive accuracy out of all of the selection methods.

#### 4.4.3 Advantages and Disadvantages of the Job Interview

Only two themes emerged from the content analysis of responses to the advantages of the job interview, compared to the six themes which were identified from the responses to the disadvantages question.

The advantage themes were “opportunity to explain/express themselves” and “gain feel for organisation.” These findings could be explained by McMahon (2002), who said that the face-to-face interaction is customary, and without this aspect, managers would lose confidence in the recruitment and selection process.

While some respondents felt that there were no disadvantages to taking part in interviews, several themes emerged from content analysis. These include: learned interview skills; bad interviewer skills; good candidate performing badly in the interview; and time consuming. However, there are many additional pitfalls regarding the job interview. For example, interviewers have been found to favour candidates similar to themselves; interviewers sometimes cannot recall the interview in detail; impaired interviewer decision-making; responding unconsciously to visual and non-verbal cues and candidate stereotypes. (Anderson, 1992; Bratton & Gold, 1994; Judge & Ferris, 1994; McMahon, 2002).

#### 4.4.4 Desirable Candidate Characteristics

Interestingly, neither social nor cognitive factors were the most desirable candidate characteristic. Positive attitudes were the most desirable characteristic. Cognitive factors were the second most desirable characteristic.

Traditionally, personality tests have been used in recruitment to measure candidate characteristics. However, in the case of the job interview, Morton (1994) found that interviewers are more influenced by positive than negative information when making judgements about a candidate’s abilities. Perhaps these positive attitudes are most palpable for interviewers and they are more aware of these in interviews than any other characteristics.

#### 4.4.5 Implications of the Research

Although the hypotheses were not formally supported, some of the descriptive statistics provide some interesting information. The information implies that employers view the interview as a very important aspect of recruitment, and it is often used more than once per candidate, which may not be encouraging for those with A.S. However, in many cases, employers noted that good candidates can have bad interview skills, or perform badly on that particular day for any number of reasons. Attitudes to work were the most commonly cited positive employee characteristics, however, both cognitive and social characteristics also featured. This could mean that A.S. candidates are not faced with the chance of an employer's implicit theory of intelligence pertaining to either cognitive or social; it could be influenced by any combination of cognitive, social or candidate attitudes.

#### 4.4.6 Limitations of the Research

Results from the latter section of the questionnaire should be interpreted with caution due to the low number of responses obtained. However, while the quantitative data was minimal, the qualitative data was rich and varied and contained a great deal of useful information. Prolonging the data collection may not have yielded many more complete responses. There may have been an issue with the personas in the latter part of the questionnaire that caused the drop-off in responses. Respondents may not have had the time to complete the concluding section of the questionnaire. Also, some may have felt that there was not a sufficient amount of detail in the personas to answer the associated questions.

The validity of the measure could be questioned, as it is possible that the employer would rate the employability and intelligence differently in a real face-to face interview as opposed to the written descriptions used in this study.

The personas provided were perhaps not an ideal measure for this study as there also appears to be a priming effect among responses. However, it was implemented in the study because other options to present this information to the employer such as someone with A.S. present themselves to the employer in person, were not feasible. In relation to the open-ended responses given as to why respondents made their decisions, many were copied from the descriptions provided. This could suggest that

the respondents did not take time to consider each candidate. Responses where the participant did not select a candidate for employment were quite vague and difficult to interpret. Also, the descriptions of A.S. provided were not detailed enough to explain the syndrome effectively as it is wide and varied. A lot of respondents felt that they could not comment on the intelligence of the candidates using the limited information provided in the descriptions provided.

#### 4.4.7 Suggestions for Future Study

This study adds to the small amount of research in the following areas: A.S. in adults (especially in an Irish context); use and prevalence of the interview (in an Irish context and in recent times); and A.S. in the workplace, in an Irish context. This study paves the way for further research in this area, and points to areas in the methodology that need to be refined. Typically, when a candidate applies for a job, the person's skills, knowledge and personal attributes are matched to the job description and person specification of a vacant post (Gunnigle, Heraty & Morley, 2006). It is possible employers struggled to make a decision based on that a written description of a hypothetical candidate for a hypothetical job. Future study could include a similar method but allowing for a more detailed description of A.S., such as interviewer notes from the job interview for example. A standardised measure used to define emotional and general theories of intelligence could also be implemented into a future study. With regard to this study, it was difficult to test many aspects of the questionnaire due to the low number of responses. However, it seemed to be a worthwhile investigation which provided many pointers for the subsequent study.

#### 4.4.8 Conclusion

The previous chapters have identified gaps in the research in the area of A.S. and employment, and have built upon these topics. The flaws and opportunities identified have helped to clarify further what is missing in the area of implicit theories of intelligence, A.S., and employment. Hence, the following chapter contains a methodology that is similar to this study, but with a more refined methodology, and on a larger scale. In particular, the next chapter will examine the employers' implicit themes of intelligence within a larger study.

## **Chapter 5:**

# **Employers' Implicit Theories of Intelligence in the Recruitment of Individuals with Asperger's Syndrome**

## 5.1 Introduction

The final section of this research examines employers' implicit theories of intelligence. Modern Cognitive theories of intelligence such as Sternberg (1985) and Gardner (1983, 1999) refer to a 'traditional' view of intelligence for the most part. These intelligences refer to what is utilised in academia, problem solving and innovative ways of thinking. This type of intelligence is especially associated with individuals with A.S., as they often have exceptional cognitive abilities when compared to neurotypicals (Fitzgerald, 2005). Emotional theories of intelligence (Mayer & Salovey, 1993, 1995; Salovey & Mayer, 1990) refer to intelligences involved in regulating expressing and adapting emotion, and are used in interpersonal interactions. Due to the social deficits associated with A.S., it is generally not associated with theories of Emotional Intelligence (E.I.). Therefore, an employer whose implicit theory of intelligence is influenced by E.I. is less likely to hire or rate the intelligence of an A.S. candidate highly compared to a neurotypical candidate. Similarly, an employer whose implicit theory of intelligence is influenced by a cognitive theory is less likely to hire or rate the intelligence of a neurotypical candidate highly compared to an A.S. candidate.

1. Employers who rate emotional intelligence highly would be less likely than employers who rate cognitive intelligence to hire someone with Asperger's Syndrome.
2. Employers would be unlikely to hire a candidate who is described as having the symptoms of Asperger's Syndrome.
3. Employers would be more likely to hire a candidate knowing the candidate has Asperger's Syndrome than a neurotypical candidate.

The previous chapter prompted the researcher to develop a more statistically relevant study, with a larger sample size. This quantitative method was chosen because the previous studies added rich qualitative data to the limited amount of research available in the area. A quantitative method also seemed appropriate for this final study, as the research in previous chapters has led to well developed and clearly specified hypotheses. The methodology employed in the study used two standardised measures- one which measures perceptions of emotional intelligence and another which measures perceptions of cognitive intelligence. Participants were also presented with a detailed description of a candidate with Asperger's syndrome (A.S.) which

included summaries of qualifications and work experience, previous employer references and job interview notes. The results are then presented, followed by their relevance to the literature and implications.

## 5.2 Methodology

### 5.2.1 Participants

Employer, in this study, is defined as any individual who takes part in the interview process of recruitment and whose recommendations results in the individual being employed or rejected. Purposive sampling was used in this study. Employers were from micro, small, medium or large organisations. Within the European Union, the Statistical Office of the European Communities definitions of small, medium and large sized companies is used. These are: small: 10-99 employees; medium: 100-499; large: 500+ (Palmer & Hartley, 2002). Organisations that have less than 10 employees are defined as “micro”.

Organisations were from the fields of information technology (I.T.), science or engineering, with majority of employees having degrees in these areas. These employers were found through a database of employers, (Graduate Careers Ireland & GTI Ireland, 2008), and through a search of the internet, phonebooks and contact databases. The researcher’s database consisted of 300 employers, of which there were 99 respondents (30.3% response rate). The sample consisted of 46.5% males (n=46) and 53.5% females (n=53). The majority of respondents (n=62) belonged to the 34-49 age category. Figure 5.1 below depicts participant age categories.

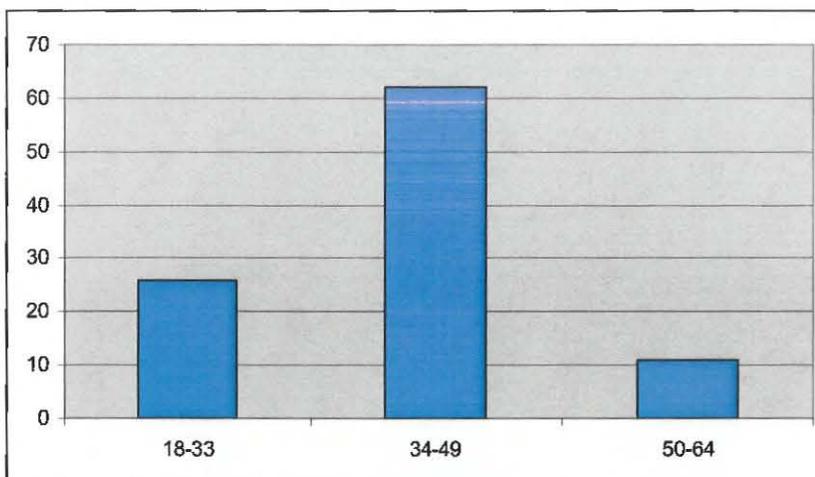
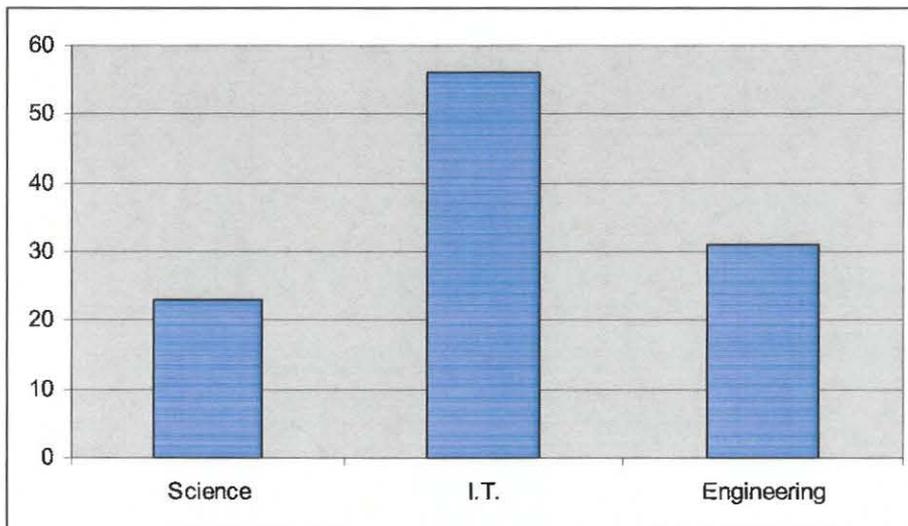


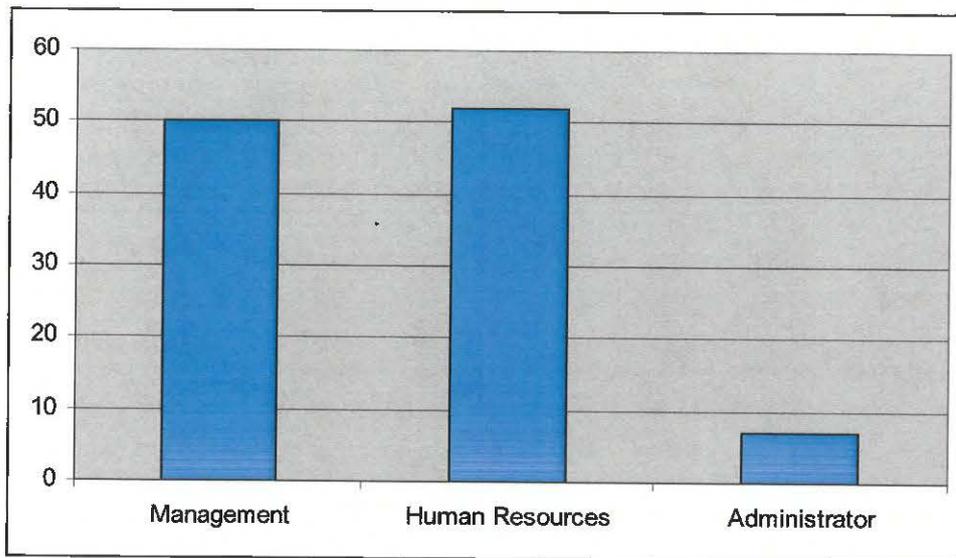
Figure 5.1: Age Distribution of Respondents

The respondents were from three sectors of industry- information technology, engineering, and science. The sample comprised of 50.9% (n=56) of responses from the information technology sector, followed by 28.2% (n=31) in engineering and 20.9% (n=23) in science. A small number of responses overlapped for the sector of industry question, with some respondents choosing more than one sector of industry to describe their organisation, which is both plausible and feasible. For example, the scope of telecommunications organisations could include both I.T. and engineering. In the cases where a respondent chose two or more options to describe the organisation's sector, each option was recorded separately. Figure 5.2 below depicts the graph related to this data.



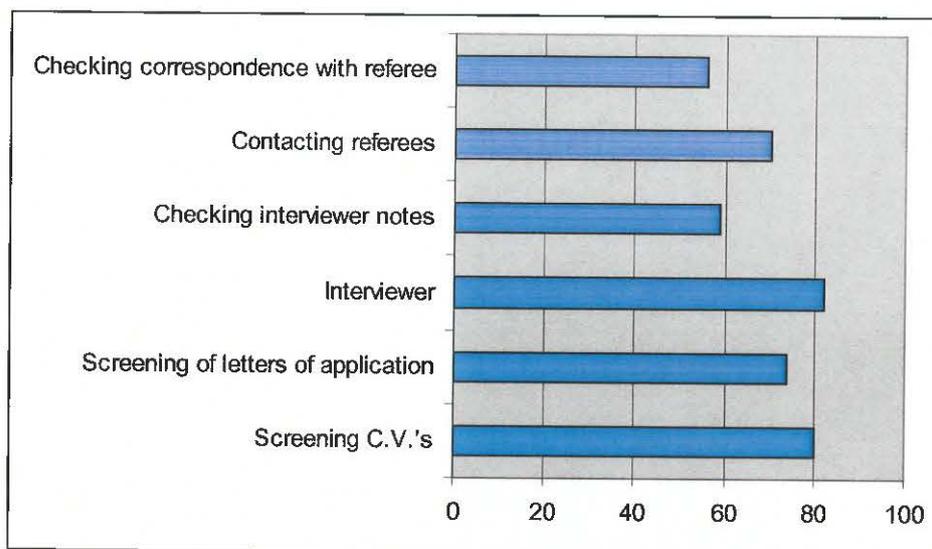
**Figure 5.2: Respondent Sector of Industry**

Similarly, there was also some overlapping of responses for the role in organisation question. The majority of participants, 47.7% (n=52) worked in the human resources department closely followed by 45.9% (n=50) working in management. Administrators were the minority of the sample, with 6.4% (n=7). Figure 5.3 overleaf illustrates the distribution of employer roles among the sample. In the case where a respondent chose two or more options to describe their role within the organisation, each option was recorded separately. For example, if a human resource manager selected “human resources” and “manager.”



**Figure 5.3: Roles of Respondents**

The respondents were selected based on their experience and expertise in the recruitment process. Each respondent was involved in the recruitment process in some way. The most common aspect of the recruitment process among 36.3% (n=82) of respondents was the interview, followed by screening C.V.'s with 32.7% (n=74) and screening letters of application with 31% (n=70). The sample demonstrated the relevant expertise with regard to what was required for this study. Figure 5.4 below contains a detailed illustration of the aspects of recruitment with which the respondents were experienced.



**Figure 5.4: Aspects of Recruitment Involving Respondents**

### 5.2.2 Materials

The measure used consisted of a four-part online questionnaire. Part One was used to obtain demographic information from the respondents. The demographic questionnaire can be found in Appendix H. Part Two was a quantitative questionnaire based on behaviours generated in a study by Sternberg (1985). Professors in the fields of art, business, philosophy and physics and laypersons were asked to list behaviours that are characteristic of an ideally intelligent, creative or wise person. The responses generated 40 behaviours in each category. The list of 40 intelligent behaviours compiled by Sternberg (1985) will be used in this study. For the purpose of this study, the list will be referred to as Sternberg's Implicit Theories of Intelligence Inventory (SITII). The SITII was rated on a four point Likert type scale to determine which behaviours would be found in an intelligent person. The researcher completed a thorough investigation of relevant research, but did not uncover any standardized measure to test implicit theories of intelligence. The SITII was the most cited list of cognitive intelligences in previous research. Figure 5.5 (below) is an example of an item on the SITII. See Appendix H for the complete measure.

<b>Please consider your definition of intelligence and rate the behaviours on the scale below accordingly</b>				
<b>1. An intelligent person:</b>				
	Strongly agree	Agree	Disagree	Strongly disagree
Tends to see attainable goals and accomplish them	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Figure 5.5: An item from the SITII**

Part Three was also a quantitative measure. It was designed by Akers, Miller, Frazee and Haygood (2004). It is a twenty-item emotional intelligence inventory which will be referred to as the Emotional Intelligence Inventory (EII). The twenty emotional intelligence competency areas were selected based on an extensive review of the literature. Akers et al (2004) tested the measure for content validity and face validity and also completed a pilot test to establish internal consistency. Cronbach's coefficients ranged from  $r = .85$  to  $r = .87$  for each of the competency areas. In this study, participants rated each competency area using a four point Likert type scale according to the importance of each competency area in an employee. In order to

ensure consistency among measures, a four point Likert type scale was applied to the SITII, as the validity tests were carried out on the EII, which is on a four point scale. Figure 5.6 (below) is an example of an item from the EII. See Appendix J for the complete EII.

<b>Please consider what you think is important in an employee and rate each trait on the scale below accordingly</b>				
	Very important	Somewhat important	Of little importance	Not important at all
Ability to cooperate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Figure 5.6: An item from the EII**

Both the EII and SITII were scored on a four point Likert scale, ranging from Strongly Agree (4), Agree (3), Disagree (2), Strongly Disagree (1). The SITII contained 40 items and the EII had 20. Therefore, all scored were totalled and converted to raw scored for statistical analysis.

Part Four was an examination of how effective the provision of information about A.S. is in influencing employers' perceptions of A.S. candidate's suitability of employment. In order to prevent participant bias, the measure was distributed in two conditions. The researcher randomly distributed each condition among participants to obtain an equal number of participants across both conditions. All participants were presented with a persona of an unnamed job candidate with A.S., where it was not stated explicitly that the candidate had A.S. Data obtained from the previous case studies conducted by the researcher was used to compile the persona. The candidate was not identified as male or female to rule out gender bias. The description had been compiled to give the reader the impression that the candidate's application had been formally assessed in the recruitment process. The description contained summaries of:

- The candidate's qualifications and experience,
- Previous employers' references,
- Interview notes from the candidate's one to one interview with the human resources manager,

- Interview notes from the candidate's panel interview with the same human resource manager, the head of department and a manager from the department in which two additional candidates were also present.

#### Condition One (Appendix K)

These participants were informed that the candidate had A.S. A description of A.S. (Atwood, 1998) and A.S. in the workplace (Hurlbutt & Chambers, 2004) were also provided. Participants were asked if they would hire the A.S. candidate and if they thought the A.S. candidate was intelligent.

#### Condition Two (Appendix L)

- These participants were not given the confirmation that the candidate had A.S., nor were they given a description of A.S. (Atwood, 1998) or A.S. in the workplace (Hurlbutt & Chambers, 2004). However, they were also asked if they would hire the candidate and if they thought the candidate was intelligent.

#### 5.2.3 Procedure

Firstly, contacts were sent an email about the study, informing them that they will receive a link to an online questionnaire in a few days (See Appendix N). Dillman (2000) found that response rates increased in mail surveys when this step was included. The email with the link to the survey was then sent to the sample (Appendix O). Each participant was given a PIN to allow the researcher to identify respondents and non-respondents. The consent form (Appendix M) preceded the questionnaires.

Participants filled out the demographic questionnaire (Appendix H) followed by the two intelligence scales, the SITII (Appendix I) and the EII (Appendix J).

The participants were randomly assigned to one of the following conditions:

- Condition One- participants were given the measure which included the description of A.S. and the confirmation that the candidate has A.S. (Appendix K).
- Condition Two- participants were given the measure which included the description of A.S., but no confirmation that the candidate has the syndrome (Appendix L).

A debrief followed both conditions (Appendix R), and one week after the link was sent to the sample, a reminder was sent to non-respondents (Appendix P), and a thank-you note was sent to respondents (Appendix Q)

### **5.3 Results**

This section contains analysis of responses to the SITII (Appendix I) and the EII (Appendix J). Both measures contained items which respondents rated on four-point Likert scales. The analysis of the quantitative data is described within each subheading.

The SITII and the EII were followed by an additional section which included: the description of A.S. and the confirmation that the candidate has A.S. (Condition One - Appendix K), or the description of A.S. only (Condition Two - Appendix L). This section of the questionnaire provided both quantitative and qualitative data. With regard to the qualitative data, responses to open-ended questions were compiled using content analysis by theme. Copies of the responses were given to an independent researcher who also coded these items in order to conduct a test of inter-rater reliability of the themes identified. The qualitative data is summarised and presented using content analysis by theme and visual presentations (tables and bar charts). In addition to the analyses relating to the hypotheses, the researcher also tested to examine the influence of other variables. The additional analyses follow the analyses of the hypotheses.

#### 5.3.1 Analysis of Implicit Theory of Intelligence and Employability

To determine whether the respondent's implicit theory of intelligence was cognitive or emotional, the scores on the SITII and EII were compared. Raw scores were converted to z-scores for comparison purposes. The respondents who scored higher on the SITII than the EII were considered cognitive, and those who scored higher on the EII than the SITII were considered emotional. However, seven respondents had matching scores on the SITII and EII and were excluded from the analysis.

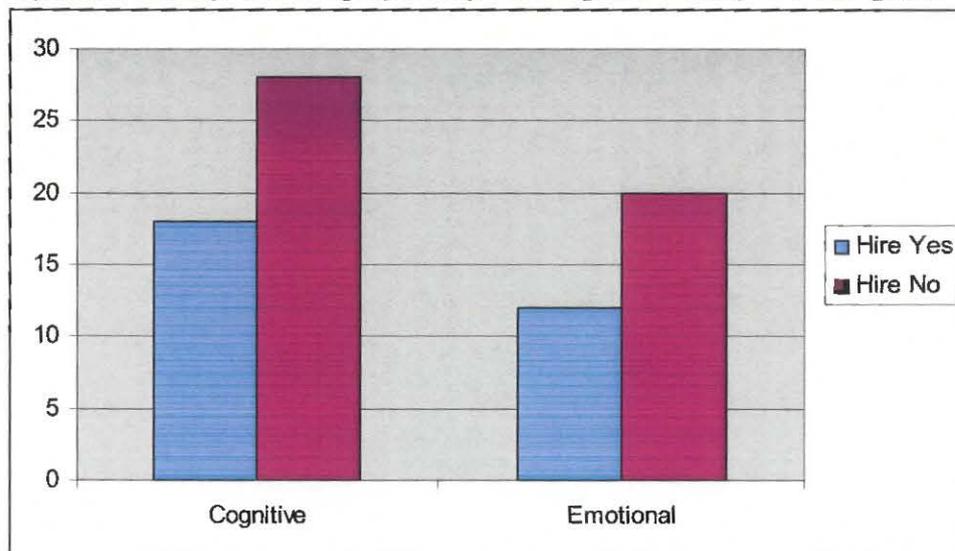
A chi-square test of the employability (yes or no) and implicit theory of intelligence (cognitive or emotional) provided the data shown in Table 5.1 below. The majority of respondents (59%, n = 46) had implicit theories of intelligence of a cognitive nature, of this group, the majority (60.87%, n= 28) opting against hiring the candidate. There

were fewer respondents (41%, n= 32) with implicit theories of intelligence of an emotional nature; however, the majority (62.5%, n= 20) of these also chose not to hire the candidate. This is illustrated in Figure 5.7 below.

**Table 5.1: Chi-square analysis of Implicit Theories of Intelligence and Employability**

	Hire		
	Yes	No	Total
Cognitive	39.13% (n=18)	60.87% (n=28)	59% (n=46)
Emotional	37.5% (n=12)	62.5% (n=20)	41% (n=32)

**Figure 5.7: Analysis of Employability and Implicit Theory of Intelligence**



There was no relationship between the respondents' implicit theory of intelligence and the candidate's employability:  $\chi^2 (2, N=78) = .021, p = .884$ .

The average score on the EII (.1271) was higher than the SITII (-.0305) when the candidate was chosen for employment. The mean difference between the tests was -.15765 and the 95% confidence interval for the estimated population mean difference is between .19989 and -.51518. The effect size was small ( $d = 0.1247$ ). A paired  $t$ -test showed that the difference between tests was not significant ( $t = -.9, df = 30, p > .1875$ , one-tailed). There was no significant correlation between the EII and SITII scores when the candidate was chosen for employment ( $r = .073, N = 31, p = .696$ ).

The average score on the SITII (.0145) was higher than the EII (-.0728) when the candidate was not chosen for employment. The mean difference between the tests was

.08731 and the 95% confidence interval for the estimated population mean difference is between .49399 and -.31937. The effect size was small ( $d = 0.07547$ ). A paired  $t$ -test showed that the difference between tests was not significant ( $t = .43$ ,  $df = 55$ ,  $p > .3345$ , one tailed). There was no significant correlation between the EII and SITII scores when the candidate was not chosen for employment ( $r = .141$ ,  $N = 56$ ,  $p = .301$ ).

Tests for linear regression were carried out. It was predicted that employers who rated the SITII highly (.058) were likely to hire the candidate while those who obtained a low score on the measure (-.002) were not likely to hire the candidate. It was also predicted that employers who rated the EII highly (.028) were likely to hire the candidate while those who obtained a low score on the measure (-.076) were not likely to hire the candidate. However, given the small value of  $r$  (.026) for the SITII and (.049) in the EII the prediction is not likely to be accurate.

ANOVAs were carried out to investigate possible confounding variables. There was no statistically significant effect of respondent gender ( $F(1,85) = 2.691$ ,  $p = .105$ , partial  $\eta^2 = .031$ ) on employability of the A.S. candidate. Similarly, there was no statistically significant effect of respondent age ( $F(2,84) = 1.231$ ,  $p = .297$ , partial  $\eta^2 = .028$ ) or size of respondent's organisation ( $F(3,83) = 1.683$ ,  $p = .177$ , partial  $\eta^2 = .057$ ) on the employability of the A.S. candidate.

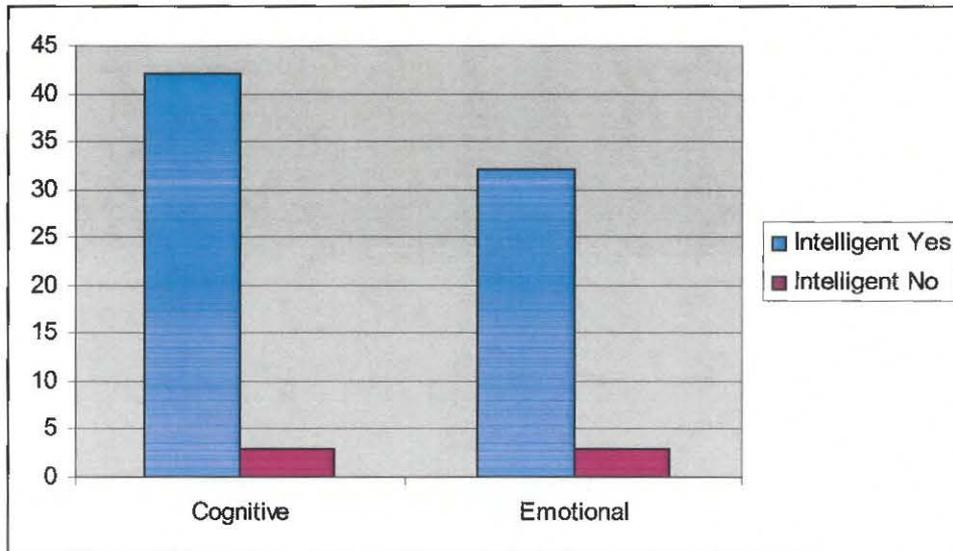
### 5.3.2 Analysis of Implicit Theory of Intelligence and Candidate's Perceived Intelligence

A chi-square test of the candidate's perceived intelligence (yes or no) and implicit theory of intelligence (cognitive or emotional) provided the data shown in Table 5.2 overleaf. Cognitive theories were marginally more prevalent than Emotional theories among the sample (56% to 44%), with the vast majority of respondents (92.5%,  $n = 74$ ) considering the candidate to be intelligent.

**Table 5.2: Chi-square analysis of Implicit Theories of Intelligence and Candidate's Perceived Intelligence**

Intelligent			
	Yes	No	Total
<b>Cognitive</b>	52.5% (n=42)	3.8% (n=3)	56.2% (n=45)
<b>Emotional</b>	40% (n=32)	3.8% (n=3)	43.8% (n=35)

These results are also illustrated in Figure 5.8 below.



**Figure 5.8: Analysis of Perceived Intelligence and Implicit Theory of Intelligence**

The analysis showed that 2 cells had expected count less than 5, so Fisher's exact significance test was selected for Pearson's chi-square. There was no relationship between the candidate's perceived intelligence and the respondents' implicit theory of intelligence:  $\chi^2 (2, N=80) = .103$ , exact  $p = .536$ .

The average score on the EII (-.0197) was higher than the SITII (-.0718) when the candidate was considered intelligent. The mean difference between the measures was -.05209 ( $\sigma = 1.23612$ ) and the confidence interval for the estimated population mean difference was between .223 and -.32717. The effect size was medium ( $d=.5$ ). A paired t-test showed that the difference between measures was not significant ( $t = -.377$ ,  $df = 79$ ,  $p = .3535$ , one-tailed). There was no significant correlation between the EII and SITII scores when the candidate was considered intelligent ( $r = .174$ ,  $N = 80$ ,  $p = .123$ , one-tailed).

The average score on the SITII (.7419) was larger than the EII (-.2302) when the candidate was not considered intelligent. The mean difference between the measures

was .97210 ( $\sigma = 2.23132$ ) and the confidence interval for the estimated population mean difference was between 3.31372 and -1.36953. The effect size was medium ( $d=.614$ ). A paired t-test showed that the difference between measures was not significant ( $t= 1.067$ ,  $df = 5$ ,  $p = .1675$ ). There was no significant correlation between the EII and SITII scores when the candidate was not considered intelligent ( $r = .160$ ,  $N = 6$ ,  $p = .762$ ).

There was no statistically significant effect of gender on perceived candidate intelligence ( $F (1,88) = .487$ ,  $p = .487$ , partial  $\eta^2 = .006$ ). Respondent age was not shown to influence the ratings of perceived intelligence ( $F (2,87) = 1.269$ ,  $p = .286$ , partial  $\eta^2 = .028$ ), nor did respondent's company size influence the ratings ( $F (3,86) = 1.137$ ,  $p = .339$ , partial  $\eta^2 = .038$ ).

### 5.3.3 Analysis of Difference Between Conditions

The final part of the questionnaire was also an examination of how effective the provision of information about A.S. is in influencing employers' perceptions of A.S. sufferers' suitability of employment. To prevent participant bias, the measure was distributed in two conditions. For Condition One, participants were given the measure which included the persona of the A.S. candidate, a description of A.S. and confirmation that the candidate has A.S. (Appendix K). Condition Two included the persona of the A.S. candidate only, with no confirmation that the candidate has A.S. (Appendix L). Table 5.3 overleaf contains the demographic data according to each condition.

**Table 5.3: Comparison of Demographic Data**

	<b>Condition One</b>	<b>Condition Two</b>
<b>Gender</b>		
<i>Male</i>	45.8% (n=22)	47.1% (n=24)
<i>Female</i>	54.2% (n=26)	52.9% (n=27)
<b>Age Category</b>		
<i>18-33</i>	35.4% (n=17)	17.6% (n=9)
<i>34-49</i>	62.5% (n=30)	62.7% (n=32)
<i>50-64</i>	2.1% (n=1)	19.6% (n=10)
<b>Company Size</b>		
<i>Micro (1-9)</i>	22.9% (n=11)	20.8% (n=10)
<i>Small (10-99)</i>	25% (n=12)	16.7% (n=8)
<i>Medium (100-499)</i>	41.7% (n=20)	37.5% (n=18)
<i>Large (500+)</i>	10.4% (n=5)	25% (n=12)
<b>Sector of Industry</b>		
<i>Science</i>	16.7% (n=8)	23.7% (n=14)
<i>I.T.</i>	56.3% (n=27)	45.8% (n=27)
<i>Engineering</i>	27.1% (n=13)	30.5% (n=18)
<b>Role in Organisation</b>		
<i>Management</i>	41.7% (n=20)	49.2% (n=30)
<i>Human resources</i>	50% (n=24)	55.9% (n=28)
<i>Administration</i>	8.3% (n=4)	4.9% (n=3)

There was no significant difference between the conditions with regard to gender ( $z=0$ , N- Ties = 22,  $p = .50$ , one-tailed) or company size ( $z= -.105$ , N- Ties =29,  $p = .066$ ), however there was a significant difference in age across the conditions ( $z= -3.854$ , N – Ties = 23,  $p < 0.001$ ).

Table 5.4 overleaf presents the overall mean score and standard deviations for Sternberg's Implicit Theories of Intelligence Inventory and the Emotional Intelligence Inventory in each condition.

**Table 5.4: Mean and Standard Deviation SITII and EII Scores in each condition**

	Condition One	Condition Two
<b>Sternberg's Implicit Theories of Intelligence Inventory</b>	$\mu = -.0098$ $\sigma = .67665$	$\mu = .0105$ $\sigma = 1.26502$
<b>Emotional Intelligence Inventory</b>	$\mu = .1079$ $\sigma = .91354$	$\mu = -.1126$ $\sigma = 1.08150$

There was no statistically significant effect of the difference in conditions on the scores of the SITII ( $F(1,93) = .01, p = .922, \text{partial } \eta^2 = 0$ ). Similarly, it did not affect the scores of the EII ( $F(1,93) = 1.169, p = .282, \text{partial } \eta^2 = .012$ ). Statistical power of differences between conditions of SITII is 6.1% and the EII is 28.1%

Table 5.5 below depicts the differences between the number of people who would hire a person with A.S., when they had confirmation of the syndrome (53.7%;  $n=22$ ) compared to when they had only a description but not confirmation of the syndrome (20.5%;  $n=9$ ). To a lesser extent, there was a difference in the number of respondents who would not consider the candidate as intelligent in Condition One (2.3%;  $n=1$ ) compared with Condition Two (13.3%;  $n=6$ ).

**Table 5.5: Employability and Perceived Intelligence of Candidate in each condition**

	Condition One: <i>A.S. Persona, Description of A.S., and Confirmation that Candidate has A.S.</i>	Condition Two: <i>A.S. Persona only, <b>NO</b> description or confirmation that the candidate has A.S.</i>
<b>Hire</b>		
Yes	53.7% ( $n=22$ )	20.5% ( $n=9$ )
No	46.3% ( $n=19$ )	79.5% ( $n=35$ )
<b>Intelligent</b>		
Yes	97.1% ( $n=42$ )	86.7% ( $n=39$ )
No	2.3% ( $n=1$ )	13.3% ( $n=6$ )

The difference in conditions resulted in a statistically significant effect on the A.S. candidate's perceived intelligence ( $F(1,88) = 4.5, p = .037$ , partial  $\eta^2 = .049$ ) and perceived employability ( $F(1,85) = 10.036, p = .002$ , partial  $\eta^2 = .106$ ).

#### 5.3.4 Analysis of Sternberg's Implicit Theories of Intelligence Inventory (SITII)

The SITII was used in the study to measure participants' implicit theories of intelligence. There are many factors within a cognitive theory, such as judgement, learning, memory, (Sternberg, 1985) Therefore, the individual rankings of items were compiled to uncover which facets are the most common in implicit theories. The numerical values which participants assigned to each item on the Likert scale were totalled.

An ANOVA found a statistically significant effect of respondent gender on SITII scores ( $F(1,93) = 4.243, p = .042$ , partial  $\eta^2 = .044$ ). However, the effect of age was not significant ( $F(2,92) = .7, p = .499$ , partial  $\eta^2 = .015$ ), neither was company size ( $F(3,91) = .737, p = .533$ , partial  $\eta^2 = .024$ ).

#### 5.3.5 Analysis of the Emotional Intelligence Inventory (EII)

The EII measured participants' implicit theories of emotional intelligence. Similarly, there are many facets to emotional intelligence theories, including communication and empathy (Mayer & Salovey, 1993, 1995; Salovey & Mayer, 1990). An investigation of the items on the EII sought to ascertain which of these facets are the most and least prominent. The numerical values which participants assigned to each item on the Likert scale were totalled. The researcher then identified the highest and lowest ranked items within the EII. Table 5.8 below shows the highest ranked items. Table 5.9 shows the lowest ranked items.

No statistically significant effect of gender on EII scores ( $F(1,93) = .417, p = .52$ , partial  $\eta^2 = .004$ ). Age did not effect the EII either ( $F(2,92) = 1.395, p = .253$ , partial  $\eta^2 = .029$ ), nor did company size ( $F(3,91) = .369, p = .776$ , partial  $\eta^2 = .012$ ).

#### 5.3.6 Comparing the SITII and EII

The average score on the EII ( $\mu = 0.00$  ;  $\sigma = 1.00$ ) was higher than the average score for the SITII ( $\mu = .0103$ ;  $\sigma = 1.00031$ ) (Table 5.6 overleaf). The mean difference

between the measures was .01028 and the 95% confidence interval for the estimated population mean difference is between .27332 and -.25277. The effect size was small ( $d = .0103$ ). A paired t-test showed that the difference between measures was not significant ( $t = .078$ ,  $df = 93$ ,  $p = .469$ , one-tailed). There was no significant correlation between the EII and SITII scores ( $r = .176$ ,  $N = 94$ ,  $p = .091$ ).

**Table 5.6: Mean Scores and Standard Deviations of the Measures**

Measure	Raw Score	z-Score
EII	$\mu = 34.1915$ ; $\sigma = 10.96650$	$\mu = 0.00$ ; $\sigma = 1.00$
SITII	$\mu = 58.9895$ ; $\sigma = 15.51560$	$\mu = .0103$ ; $\sigma = 1.00031$

### 5.3.7 Employability of a Candidate with Asperger's Syndrome

Participants were presented with a description of a job candidate who has A.S. For this section, both conditions (with and without confirmation that the candidate has A.S.) were analysed together. The majority of respondents (63%,  $n=54$ ) would not hire the candidate, while 37% ( $n=4$ ) would hire the candidate

Participants were then asked to state why they had made that particular choice. Responses were analysed using content analysis and separated according to whether the candidate was chosen for employment or not. The result of this assessment was 88% agreement in coding. The chosen themes were shown to have a high level of inter-rater reliability, thus they were regarded as valid themes to use in order to group the responses to these questions. The items of disagreement were discussed until a theme was agreed upon by both researchers. Table 5.7 overleaf displays the themes that emerged from analysis of responses who would hire the candidate. The response rate for this question was poor compared to those who stated why they would not hire the candidate. Six respondents said they would hire the candidate based on the cognitive capabilities. Three respondents stated social characteristics as a reason to hire the candidate. There were two respondents who chose behavioural characteristics or attitudes, while three respondents stated other or ambiguous reasons.

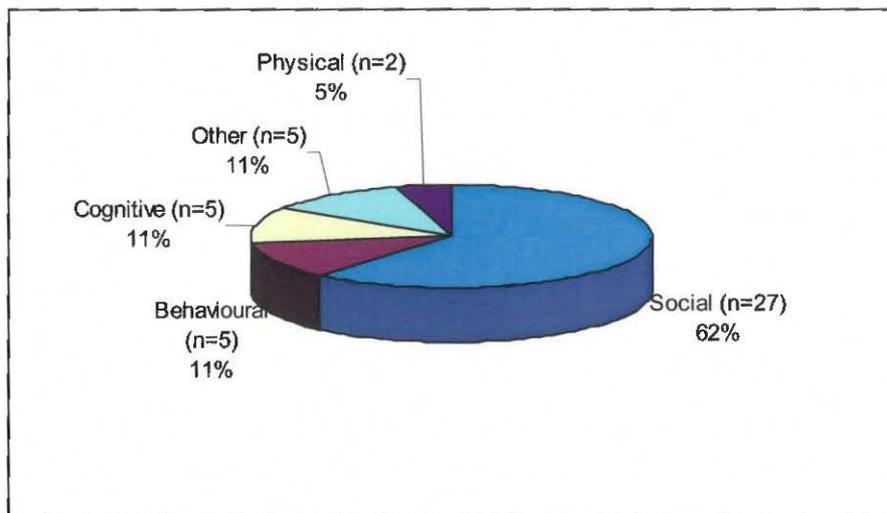
**Table 5.7: Theme and example of responses where candidate would be hired**

<b>Theme</b>	<b>Example</b>
Social	“Social skill not essential among my employees”
Cognitive	“Definitive technical ability would win over for a programming/design job”
Attitudes	“I want to run an organisation that can handle talent”, “Asperger's syndrome is practically a badge of honour in the field of programming”
Behavioural	“Can be managed”
Other	“Not every "normal" candidate is always perfect either”

Table 5.8 below displays themes and examples of responses who would not hire the candidate. Twenty-seven respondents cited social characteristics as the reason why they would not hire the candidate. Two respondents referred to physical attributes as to why they would not employ the candidate. Behavioural, cognitive and other characteristics were cited by five respondents. Figure 5.9 overleaf illustrates the number of responses in each theme.

**Table 5.8: Themes and examples of responses where candidate would not be hired**

<b>Theme</b>	<b>Example</b>
Social	“Would not work well as part of a team”, “Would not integrate into our organisation”
Cognitive	“Could not deal with 'what if' questions”, “Candidate is possibly too specialised”
Physical	“Sensitive to light and noise and requires a quiet workstation”
Behavioural	“Does not seem to have the ability to deal with stressful situations”
Other	“If the other two candidates interviewed better and I was not aware of Candidate 1's condition, I would probably offer the job to another candidate”



**Figure 5.9: Breakdown of response themes where candidate would not be hired**

#### 5.3.8 Perceived Intelligence of a Candidate with Asperger's Syndrome

Respondents were then asked if they considered the candidate to be intelligent. Again, both conditions (with and without confirmation that the candidate has A.S.) were analysed together. Similarly, as above, the responses were analysed using content analysis and separated according to whether the candidate was considered intelligent or not. The majority of respondents considered the candidate to be intelligent (92%, n=82), while 8% (n=7) did not. Table 5.9 (below) displays the themes and examples of responses where the candidate was perceived to be intelligent. The majority of respondents (75%, n=34) cited cognitive factors as to why they considered the candidate to be intelligent. However, some respondents (18%, n=8) noted the social deficits in their answer despite declaring that the candidate was intelligent. 7% (n=3) of respondents cited other factors.

**Table 5.9: Themes and responses where candidate was considered intelligent**

Theme	Example
Social	"Perhaps lacking a more rounded Intelligence", "They may score low in terms of Emotional intelligence"
Cognitive	"Demonstrated through achievement on academic qualifications", "Yes in terms of IQ"
Other	"I would need to ask specific questions to determine whether the candidate is intelligent in our area of specialty"

There were only four responses as to why the candidate was not intelligent. Two respondents cited little evidence, while two other respondents cited social factors. An additional respondent did not state whether the candidate was intelligent or not because “you need to distinguish between emotional intelligence and the accepted version of intelligence before this could be answered.”

#### **5.4 Discussion**

This section includes a discussion of the findings in relation to the hypotheses and relevant research. Other variables were investigated in the analyses. Some of these were significantly, and are discussed after the hypotheses. This is followed by a summary of the implications of the research, its limitations and suggestions for further study.

##### 5.4.1 Employability of a Candidate with Asperger’s Syndrome

It was hypothesised that employers who rate emotional intelligence highly would be less likely to hire someone with Asperger’s Syndrome. However, while EII scores were higher than SITII scores when the A.S. candidate was chosen for employment, the difference between these scores was not significant, and there was no correlation between these scores. It was hypothesised that employers who rate a cognitive definition of intelligence highly would be more likely to hire someone with Asperger’s Syndrome. The SITII was rated higher than the EII when the A.S. candidate was not chosen for employment. Again, there was no significant difference or correlation between scores. While it was found that employers who rated the SITII highly were likely to hire A.S. candidate, and those who received low scores on the measure were not likely to hire the A.S. candidate, a statistical test implied that the prediction may not be accurate. Overall, there was no relationship between the respondent’s implicit theory of intelligence and the A.S. candidate’s employability.

In the qualitative section, some respondents stated that they were willing to overlook the social deficits or that social skills were not important, while others found the candidate’s cognitive ability to be quite impressive. Similarly, social skills were also a determining factor as to why the candidate would not be selected for employment. In relation to social skills, the drawbacks pertained to team work and integration. Cognitive aspects were also perceived to be harmful in terms of employability, such

as the candidate being too specialized. Hurlbutt and Chalmers (2004) found that individuals with A.S. have difficulty in finding a job that matches their ability levels. Johnson, Greenwood and Schriener (1988) also found that employers expressed concerns with regards to the social skills of disabled employees, especially their ability to work in a team.

#### 5.4.2 Perceived Intelligence of a Candidate with Asperger's Syndrome

There was no relationship between the A.S. candidate's perceived intelligence and the respondent's implicit theory of intelligence. EII scores were higher than SITII scores when the candidate was considered intelligent, however this difference was not significant and there was no correlation between scores. Interestingly, the SITII scores were higher than EII scores when the candidate was not considered intelligent. However, again, this difference was not significant and there was no correlation between scores.

In the qualitative section, a number of respondents found the candidate to be intelligent. Most of these cited cognitive factors as determining criteria in their decision. However, some did note that the social deficits were not idealistic. Some respondents specifically mentioned IQ as a cognitive feature of intelligence. It is possible that perhaps neither explicit nor implicit theories of intelligence are determining factors in recruitment, despite suggestions that implicit theories play a role in the organisation and interpretation of information (Carey & Smith, 1993; Dweck & Leggett, 1988; Epstein, 1989; Wittenbrink, Gist & Hilton, 1993).

#### 5.4.3 Analysis of Difference Between Conditions

An examination of how effective the provision of information about A.S. is in influencing employers' perceptions of an individual with A.S.'s suitability of employment was carried out.

It was hypothesised that employers would be unlikely to hire a candidate who is described as having the symptoms of Asperger's Syndrome. This hypothesis was supported. When the persona of an A.S candidate. was given, but no diagnosis confirmed, the amount of respondents who would hire the candidate dropped to one

fifth. Similarly, but to a lesser extent, the number of respondents who considered the candidate to be intelligent decreased when the confirmation of A.S. was not given.

It was hypothesised that employers would be more likely to hire a candidate knowing the candidate has Asperger's Syndrome. This hypothesis was supported. When the respondents were informed explicitly that the candidate had A.S., over half said they would hire the candidate

However, while there was no significant difference between sample gender or organisation size, there was a significant difference in age among conditions. Therefore, as there was no significant difference EII and SITII scores among conditions, it is possible that the provision of information about A.S. affected the ratings of intelligence and employability. However, there is a chance that the difference in age influenced this finding. The age of the employer could reflect a respondent's level of experience or signify a generational divide about attitudes to disability in the workplace. For example, Unger (2002) investigated the attitudes of employers toward disability before and after the implementation of the Americans with Disabilities Act and found that attitudes pre-dating the Act were more discriminatory.

It appears that employers do not discriminate against employees with A.S. if they are aware of the condition. However, the overall result regarding the candidate's suitability for employment was negative.

#### 5.4.4 Analysis of Implicit Theories of Intelligence

There was a significant effect of respondent gender on SITII scores, yet it did not affect the scores of the EII. It is typically considered that women have a higher level of emotional intelligence (Goleman, 1995).

The average scores of each measure indicated that there were more respondents with implicit theories of intelligence of a cognitive nature than emotional. However, emotional intelligence received only a marginally lower score than cognitive intelligence. Therefore, it should still be regarded as an important factor of determining intelligence among employers, despite The fact that emotional

intelligence theories have become more popular toward the end of the last century (Gardner, 1983, 1999; Goleman, 1995; Mayer and Salovey, 1993, 1995; Salovey and Mayer, 1990), while cognitive theories have been in existence for a much longer period of time (Spearman, 1904).

#### 5.4.5 Implications of the Research

Based on the findings, individuals with A.S. should disclose information about their condition to prospective employers, as it appears to increase their chances of being hired.

The study highlights the change in employer attitudes. In a study conducted 25 years previously to this one (Fuqua, Rathburn & Gade, 1984), employers expressed greater concerns over employing individuals with mental or emotional disabilities than employing those with physical disabilities. While this comparison was not investigated in this study, it appears that the attitudes towards non-physical disabilities have improved.

#### 5.4.6 Limitations of the Research

A number of respondents did not complete the questionnaire. This could be due to the length of the measures, which could take up to 15 minutes to complete. In addition to this, respondents were contacted while they were at work and therefore may not have been able to devote this amount of time to complete the survey. However, there was no more efficient methodology apparent to the researcher. Some respondents noted that they could not decide if they would hire the candidate without a job description for the vacancy. However, this would also add to the length of the measure, which could reduce the completion rate.

#### 5.4.7 Suggestions for Future Study

It would be interesting to devise a longitudinal study to investigate theories of emotional intelligence among employers as an emerging trend, and to see if it eclipses cognitive theories as the most commonly held intelligence theory among employers. Also, it would be worthwhile to investigate the disability of the candidate, employers' previous experience with workers with disabilities, size of employer and sector of

industry as investigated by Unger (2002). A similar design with the addition of a job description to compare the candidate against could be useful in future studies.

#### 5.4.8 Conclusion

This chapter contains both positive and negative findings with regard to A.S. in the workplace. Overall, employers' implicit theories of intelligence appeared to pertain to emotional intelligence but there was no link between implicit theory of intelligence and a candidate's perceived employability. The provision of information about A.S. seems to positively affect the chances of an A.S. candidate obtaining employment. Whether this finding was due to this provision of information, respondent characteristics (such as age or experience), or if it is influenced by disability legislation is a question which remains unanswered. The following chapter aims to discuss the findings of this chapter along with the previous chapters in relation to the literature, with the aim of drawing an overall conclusion to the studies.

## **Chapter 6:**

### **Discussion**

## **6.1 Introduction**

Perceptions of Asperger's syndrome (A.S.) in the workplace have been investigated from many angles in this study; from case studies to rating an A.S. candidate's Curriculum Vitae (C.V.) and interview. This final chapter begins with a discussion of the general research question. This is followed by a discussion of the hypotheses in relation to the findings from the three studies: Initial Case Studies (Chapter 3); Identifying Desirable Characteristics in Candidates(Chapter 4); and Employers' Implicit Theories of Intelligence in the Recruitment of Individuals with Asperger's Syndrome (Chapter 5). The findings of these studies will be discussed in relation to previous literature. Following on, the researcher will outline some recommendations for further research and implications for policy setting. Finally, an overall conclusion of the study will be presented.

## **6.2 Asperger's Syndrome in the Workplace**

The original research questions were *"How does Asperger's Syndrome affect employment: how does it affect recruitment and selection, how do individuals with A.S. compare to neurotypicals and what do employers know about A.S.?"* The case study research uncovered three themes, in particular: the effects of A.S. in the workplace, effects on recruitment and selection, and lack of employer knowledge. In terms of aspects of A.S. in the workplace, the positive and negative features of A.S. were mentioned in the case studies. This finding was reflected in the studies which followed. Respondents identified both the positive and negative features of A.S. in the employer ranking study (Chapter 4) and in both conditions of the employer selection study (Chapter 5). This opposes Unger's (2002) findings from her extensive literature review, whereby few of the employers' perceived benefits of employing someone with a disability related to the benefits of the disability itself. However, Unger's study (2002) concerned general disability, not specifically A.S., a condition which is characterised by auxiliary benefits, which, as a disability, is quite uncommon.

The finding that the employment interview was regarded as a very important phase of the recruitment process, not to mention the most commonly used, supported the work of Posthuma, Morgeson and Campion (2002). This could be interpreted as both beneficial and detrimental to those with A.S. seeking employment. Firstly, most of the literature on this topic suggests that the interview is not suitable for candidates with

A.S. (Berney, 2004). The findings from the case study contradict this opinion. In these cases, A.S. candidates were successful interview candidates. Although, as noted in Chapter 4, the two main disadvantages employers cite when using the interview as a selection tool were bad interviewer skills and a good candidate performing badly in the interview. These factors could affect A.S. candidate job interviews. Perhaps it has taken the presence of a good or experienced interviewer not to misjudge atypical behaviours exhibited by A.S. candidates, in the way that it can take a good or experienced interviewer to identify a good candidate having a bad interview (Gunnigle, Heraty & Morley 2006; McMahon, 2002). In addition to this, in Chapter 5, there were differences among conditions when the A.S. candidate's condition was confirmed; however, respondent age (which could suggest a level of experience) was a significant factor, which may have influenced these differences.

A "lack of employer knowledge about A.S." theme was also identified in the case study research. For example, a recurring comment among participants in the case study research was that A.S. is often explained to employers as a "form of autism." If a lack of employer knowledge about A.S. is taken into account based on the findings from Chapter 5, it could be suggested that A.S. candidates were considered less employable and less intelligent when confirmation of the syndrome was provided. It is difficult to determine the effect that the information about A.S. provided to respondents has on their existing understandings of A.S. Therefore, it is possible that existing employer stereotypes or biases about A.S. played some part in the determining of the A.S. candidate's employability, despite the researcher's attempt to provide an objective description of the condition, highlighting both deficits and benefits.

### **6.3 Comparing Candidates with Asperger's Syndrome to Neurotypical Candidates**

The original hypotheses stated that employers who find social characteristics in candidates more desirable are more likely to hire and consider a neurotypical candidate to be more intelligent than a candidate with Asperger's Syndrome. It was also hypothesised that employers who find cognitive characteristics in candidates more desirable are more likely to hire and consider a candidate with Asperger's Syndrome more intelligent than a neurotypical candidate.

The hypotheses were not given strong support by the findings. Employers who took part in the study were from the fields of science, I.T. and engineering. However, this sample accounts for a wide variety of jobs, which can range from limited to vast amounts of social interaction and calls for anywhere from basic to complicated cognitive skills or qualifications. It seems that an employers' choice between an A.S. and neurotypical candidate could be affected by many more factors than "cognitive versus social skills." Indeed, these factors may not be candidate-centred; they could reflect a management style, or an organisational strategy or directive. For example, other studies have argued (Blanck, 1998; Collington, 1986; Kemp, 1991) that larger employers are more likely to include individuals with disabilities in the workforce as they have a wider variety of jobs available, greater personnel and economic resources.

#### **6.4 Social and Cognitive Skills in Determining Intelligence and Employability**

The original hypotheses regarding intelligence, employability and Asperger's syndrome (A.S.) stated that employers who rated emotional intelligence highly would be less likely to hire someone with A.S., while those who rated a cognitive definition of intelligence highly would be more likely to hire someone with A.S.

There was no relationship between cognitive or emotional theories of implicit intelligence and employability. This findings prompts several discussion points within Chapter 5 and in relation to the findings in Chapter 4. Most notably, as it is possible that implicit theories of intelligence, either cognitive or emotional do not play a role in employment decisions, the question of what implicit theories are used by employers in the recruitment process, if any. Similarly, it could also be the case that, again it is difficult to ascertain a hypothetical candidate's suitability for employment given the fact that the candidate was not interviewed, which is the most commonly used selection tool, and that the candidate characteristics could not be matched to a non-existent job as there was no job design.

In the investigation of implicit theories of intelligence in chapter 5, social/emotional skills rated quite highly, yet they were still marginally behind cognitive skills. This was supported by the findings in chapter 4. Respondents were asked to name desirable candidate characteristics. Cognitive skills ranked slightly higher than social skills. When asked for undesirable candidate characteristics, respondents rated negative

social skills slightly higher than negative cognitive skills. This conflicting finding suggests that a combination of a candidate's cognitive and social skills play an important role in determining intelligence. It seems that an even balance between cognitive and social skills is ideal. The findings suggest that there is a link between both cognitive and social skills in determining a candidate's intelligence, yet, whether this plays a role in determining employability has yet to be determined.

In Chapter 5, attitudes were barely mentioned with regard to the employability of an A.S. candidate, despite the candidate's description alluding to both positive and negative attitudes. Employer attitudes accounted for a small number of responses where the A.S. candidate would be hired, yet, employee attitudes were not considered a factor in terms of employability. The importance of employee attitudes could depend on the employers' management or leadership style. For instance, if an employer has a laissez-faire leadership style, employee attitudes can dictate the overall functioning of the organisation. In this type of organisation, the leader's role is secondary to the employee's management of their own affairs. When it is carried out with the 'right' people, it works quite well as it brings out the best in them, however, it can result in lack of staff focus and direction. Gunnigle, Heraty and Morley (2006) described the shift in selection trends from its use as a tool for predicting future work performance to understanding it as a more two-way negotiation process. This change has prompted many researchers to investigate a number of factors, including applicant attitudes (Iles & Robertson, 1997). Despite this shift, a candidate's suitability is still the main question that a selection method must assess; however, the question as to what this assessment is remains unanswered.

### **6.5 The Effects of the Provision of Information about Asperger's Syndrome**

With regard to the provision of information about A.S., it was hypothesized that employers would be less likely to hire a candidate who is described as having the symptoms of A.S. and more likely to hire a candidate knowing the candidate has A.S. This hypothesis was supported by the data obtained in Chapter Five.

It is unclear whether employer stereotypes or equal opportunity attitudes accounted for the differences in the candidate's employability between the conditions. A common theme among participants in the case study was that confirmation of a

candidate's A.S. negatively affected the chances of employment, as it immediately lowers the candidate's IQ in the eyes of the employer. Candidates who confirmed that they had A.S. were considered more intelligent than those who presented with the symptoms only and no confirmation. This finding is supported by the literature. Emotional intelligence is becoming more prevalent and influential among employers (Daly, 2008; Fox & Spector, 2000). If an A.S. candidate was interviewed without the interviewer being informed of the candidate's condition, the interviewer would assess that the candidate has a low level of emotional intelligence. However, with confirmation of the condition, a candidate's cognitive characteristics would outshine the deficits in emotional intelligence.

This finding suggests that there is more to the "right" candidate than intelligence, as concluded in Section 6.3. These findings support the argument put forward by Adkins, Russell and Werbel (1994) that suitability is measured by matching the nature of the job and the attached responsibilities to the candidate's knowledge, skills and abilities. The findings in Chapters 4 and 5 suggest that a combination of cognitive and social competencies affect the perceived intelligence and employability. The methodologies in Chapters 4 and 5 allowed the respondents to evaluate the candidate's suitability according to three of the four generic criteria as outlined by Gunnigle, Heraty and Morley (2006). These include: capacity to perform tasks, develop new knowledge, and work productively. The additional criteria, the candidate's potential to fit into the organisation's culture can be hard to assess in any other format than a face-to-face meeting. The lack of face to face interview sampling could explain the reason why many respondents did not complete the questions relating to the candidate's employability, as it is the most commonly used method of screening, which was found in Chapter 4 and McMahon (2002).

## **6.6 Strengths and Limitations**

There were a number of strengths and limitations which should be considered when interpreting the findings. Each study within Chapters Three, Four and Five had their own specific limitations which were previously discussed within these chapters.

Overall, the strength of this study addresses that there are presently no other mixed-method studies evident to the researcher, especially in an Irish context. Research

concerning adults on the autistic spectrum seems to be growing. In comparison to the literature available pertaining to children on the autistic spectrum, it is still quite limited.

The rich qualitative data obtained in the case studies in Chapter Three directly influenced the methodologies of the following chapters. The data allowed for a better understanding of adults with A.S. in the workplace, as there were only two other similar studies evident at the time. It helped to shape the descriptions of A.S. candidates in Chapters Four and Five. Similarly, the findings from Chapter Four influenced the methodology in Chapter Five. A more effective methodology was employed in Chapter Five after several limitations were discussed towards the end of Chapter Four.

Ethical considerations may have had an impact on the results in several ways. The drop in responses for the questions relating to the candidate's employability could be due to the methodology, as mentioned above. However, candidates were made aware of their right to withdraw from the study at any stage. It cannot be determined if respondents withdrew from the study, felt the questionnaire was too time-consuming, or if they could not or did not want to answer the final questions. Despite the researcher's assurances of anonymity and confidentiality, respondents may have chosen not to give their honest opinions in case they were traced back. Additionally, as it was not the aim of the researcher to investigate direct discrimination, respondents were informed that they should not disclose any incidents of discrimination against candidates, as the researcher is required to report such incidents to the authorities. This may have caused the respondents to feel as though they could not answer as openly as possible.

There is a chance that participant bias affected the results. Firstly, social desirability may have affected responses. Secondly, respondents are likely to have been equal opportunities employers. In these organisations, it is a legal requirement that individuals cannot be treated less favourably than others with regard to disability in terms of access to employment, conditions of employment, training, experience for, or in relation to employment, promotion, or classification of posts (Gunnigle, Heraty & Morley, 2006). There was a significant increase in the number of respondents who

said they would hire the A.S. candidate when the confirmation of the condition was provided as opposed to those where it was not provided. This increase may not be due to the fact that the candidate's A.S. diagnosis was confirmed, indeed a diagnosis of any condition could have prompted the same response. Therefore, it may not be the personal belief of the respondent that the A.S. candidate is employable, but the belief as portrayed by being a representative of the organisation.

### **6.7 Recommendations for Further Research and Policy**

There were many interesting findings in the studies. These findings could be strengthened by further research. It is the researcher's recommendation that the studies shall be carried out on a larger scale. The studies in Chapters Four and Five were unique as they are the only studies evident that address A.S and employment in Ireland. It would be interesting to investigate the effects of organisation size, type of organisation and age and gender of the employer on a large scale to investigate if any of these factors have an effect on the perceived employability of a candidate with A.S. However, the current economic crisis possibly negatively affected the number of employers who took part in the study. Further consequences of the current economic crisis could reduce the number of multinational corporations operating in Ireland. Therefore, a European study regarding A.S. and employment may be more feasible due to the larger sample size. Similarly, Ireland is a part of the European Union where measures are being taken to ensure that all member states would have similar legislation regarding employment and disability. Nonetheless, an analysis of how each country has implemented the associated directives could provide some interesting results.

The findings suggested that a combination of cognitive and social skills is required by most organisations. The implication for job-seekers with A.S. is that they should focus on maximising their strengths. Peterson, Ruch, Beerman, Park and Seligman (2007) found that participants who maximised the uses of their strengths of character in their day-to-day activities, they were happier, which led to greater life satisfaction than those who did not. However it should be noted that in the Case Studies, the job coach stated that when A.S. candidates begin to talk about an interest that they have in a job interview they find it difficult to stop. Nonetheless, this strength could be restrained and put to good use.

## **6.8 Conclusion**

This study adds to the under-represented studies regarding adults with A.S. Positive adult outcomes of A.S. are often difficult to achieve. However, with the support of family, community and integration into society, those with A.S. can achieve their potential. The findings of the study are encouraging for jobseekers with A.S. These findings, coupled with the adaptable workforce in Ireland suggest that it should become increasingly easier for those with A.S. to find employment that matches their abilities, and to perform successfully within organisations. There were three main findings from the overall study.

Firstly, there is a lack of employer knowledge about A.S. Therefore, if an A.S. candidate does not reveal the condition in an employment interview, and the employer has no knowledge of the condition, there are many possible interview outcomes. Few of these are likely to be positive, as the employer may recognise stereotypical presentations or descriptions of A.S. from the media, or perhaps misinterpret the social deficits of A.S., such as lack of eye contact as disinterest, dishonesty or simply think that the candidate is not good enough. A.S. is thought to affect over 10,000 individuals in Ireland. Many of these would have great potential, and could be valuable employees. However, the possible outcomes of a lack of employer knowledge about A.S. may affect whether this potential is achieved.

Secondly, the effect of the provision of information of an A.S. candidate's condition in the job interview positively influenced the candidate's employability. The candidate was perceived as more intelligent and more employable when the condition was confirmed, compared to when a description of the symptoms only was provided. Similarly, as lack of employer knowledge about A.S. was a factor in Chapter 3, whether the A.S. candidate's increased employability and perceived intelligence was due to the benefits of syndrome, or due to the employers adhering to equal opportunities legislation.

Finally, there was no relationship between implicit theories of intelligence and perceived intelligence and employability. While it cannot be presumed that a candidate's social and cognitive factors do not play any role in employer decision-making in the recruitment and selection process, it is encouraging to individuals with

A.S. to note that their apparent social deficits may not be the single determinant of job interview outcomes.

As finding employment continues to be difficult for individuals with Asperger's Syndrome, this study has uncovered some encouraging findings. It seems that neither cognitive nor social abilities are valued by employers as much as previous research findings suggest. Also, the equal opportunities requirements appear to be working, as most employers would hire an individual with Asperger's, given confirmation of the condition and would not if the confirmation was not given.

## References

- Adkins, C. L., Russell, C. J. & Werbel, J. D. (1999). Sociometric selection and the employment interview: An empirical examination. *International Journal of Action Methods*, 52, 71-79.
- Akers, C., Miller, K., Frazee, S. D. & Haygood, J. D. (2004). A tri-state needs assessment of emotional intelligence in agricultural education. *Journal of Agricultural Education*, 45, 86-94
- American Psychiatric Association. (2000). Diagnostic and Statistical Manual of Mental Disorders (DSM-IV). In B. Kirby (2007) Retrieved on July 12, 2009 from <http://www.udel.edu/bkirby/asperger/aswhatisit.html>
- Anderson, N. (1992). Eight decades of employment interview research: A retrospective meta-review and prospective commentary. *European Work and Organisational Psychologist*, 2,1-32.
- Anderson, N. & Shackleton, V. (1993). *Successful Selection Interviewing*. Oxford: Blackwell.
- Arnold, J., Silvester, J., Patterson, F., Robertson, I., Cooper, C., & Burnes, B. (2005). *Work Psychology: Understanding Human Behaviour in the Workplace*. London: Prentice Hall.
- Arvery, R. D. & Campion, J. E. (1982). The employment interview: A summary and review of recent research. *Personnel Psychology*, 35, 281-322.
- Asperger, H. (1944). Die "Autistischen Psychopathen" im Kindesalter. *Archiv fur Psychiatrie und Nervenkrankheiten* 117, 76-136. Translated. In U. Firth (Ed.), *Autism and Asperger Syndrome* (pp. 37-92). Cambridge: Cambridge University Press.

- Atwood, T. (1998). *Asperger's Syndrome: A Guide for Parents and Professionals*. London: Jessica Kingsley Publishers, Ltd.
- Banks, T., Mok, K. & Soiseth, D. (Producers.) (2007). *America's Next Top Model* [Television Series]. U.S.A.: The CW.
- Barnes, C. (1991). *Disabled People in Britain: A Case for Anti-Discrimination Legislation*. London: C. Hurst and Co. Ltd.
- Barnhill, G. (2001). Social attributions and depressions in adolescents with Asperger Syndrome. *Focus on Autism and Other Developmental Disabilities, 16*, 46-53.
- Baron-Cohen, S., Wheelwright, S., Stott, C., Bolton, P. & Goodyer, I. (1997). Is there a link between engineering and autism? *Autism, 1*, 101-109.
- Bashe, P. & Kirby, B. (2001). *The OASIS Guide to Asperger Syndrome*. New York: Crown.
- Bender, W. N. (2001). *Learning Disabilities: Characteristics, Identification, and Teaching Strategies* (4th ed.). Boston: Allyn and Bacon.
- Berney, T. (2004). Asperger syndrome from childhood into adulthood [Electronic Version]. *Advances in Psychiatric Treatment, 10*, 341-351. Retrieved January 25, 2008 from <http://apt.rspych.org>.
- Binet, A. & Simon, T. (1905). Méthodes nouvelles pour le diagnostic du niveau intellectuel des anormaux [New methods for the measurement of the intellectual levels of the abnormal]. *L'Année Psychologique, 11*, 191-244.
- Blanck, P. D. (1998). *The Americans with Disabilities Act and the emerging workforce: Employment of people with mental retardation*. Washington DC: American Association of Mental Retardation.

- Borman, W. C. & Motowildo, S. J. (1993). Expanding the criterion domain to include elements of contextual performance. In N. Schmitt & W. Borman, C. (Eds.), *Personnel Selection in organisations* (pp. 71-98). San Francisco: Jossey-Bass.
- Bratton, J. & Gold, J. (1994). *Human Resource Management: Theory and Practice*. London: Macmillan
- Carey, S. & Smith, C. (1993). On understanding the nature of scientific knowledge. *Educational Psychologist*, 28, 235-251.
- Cascio, W. F & Aguinis, H. (2005). *Applied Psychology in Human Resource Management* (6th ed.). New Jersey: Prentice-Hall.
- Cattell, R. B. (1971). *Abilities: Their Structure, Growth and Action*. Boston: Houghton Mifflin.
- Collington, F. C. (1986). The role of reasonable accommodation in employing disabled persons in private industry. In M. Berkowitz, M. A. Hill (Ed.), *Disability and the Labor Market: Economic Problems, Policies and Programs* (pp. 196-291). Ithaca, NY: Cornell University.
- Daly, L. (2008, November 20). Getting emotional. *Irish Independent Appointments*, p. 10.
- Department of Justice. (1990). *Americans with Disabilities Act*. Retrieved on January 28, 2008 from <http://www.ada.gov/archive/adastat91.htm>
- Dillman, D. A. (2000). *Mail and Internet Surveys: The Tailored Design Method* (2nd ed.). New York: Wiley and Sons.
- Dweck, C. S., & Leggett, E. L. (1988). A social-cognitive approach to motivation and personality. *Psychological Review*, 95, 256-273.
- Dweck, C. S., Chiu, C., & Hong, Y. (1995). Implicit Theories and Their Role in Judgements and

Reactions: A World From Two Perspectives. *Psychological Inquiry*, 6, 267-285.

Economic and Social Research Institute. (2007). Disabled less likely to get jobs. Retrieved November 21, 2007, from [http://ffinder.businessworld.ie/cgi-bin/frags/advanced\\_news\\_search](http://ffinder.businessworld.ie/cgi-bin/frags/advanced_news_search)

Eder, R. W. & Harris, M. M. (1999). Employment Interview Research: Historical Update and Introduction. In R. W. Eder, & Harris, M., M. (Ed.), *The Employment Interview Handbook*. Thousand Oaks, California: SAGE Publications.

Engstrom, I., Ekstrom, L., & Emilsson, B. (2003). Psychological functioning in a group of Swedish adults with Asperger Syndrome of high-functioning autism. *Autism*, 7, 672-686.

Epstein, S. (1989). Values from the perspective of cognitive-experiential self-theory. In J. R. N. Eisenberg, & E. Staub (Eds), *Social and Moral Values: Individual and Social Perspectives* (pp. 3-61). New Jersey: Lawrence Erlbaum Associates Inc.

Equality Authority. (2004). *The Employment Equality Acts 1998 and 2004*. Retrieved on January 28, 2008 from <http://www.equality.ie/index.asp?locID=106&docID=52>

European Foundation for the Improvement of Living and Working Conditions. (2009). *Second European Quality of Life Survey Overview*. Retrieved on February 22, 2009 from <http://www.spcr.cz/cz/eu/ek/ef0902en.pdf>

FÁS. (2009). *Irish Labour Market Review 2008*. Retrieved on March 13, 2009 from <http://www.fas.ie/en/About+Us/Publications+and+Resources/Skills+and+Labour+Market+Reports/default.htm>

Firms Urged to Employ Disabled Workers. (2007, November 11). *The Irish Times*. Retrieved January 29, 2008 from <http://www.irishtimes.com/newspaper/breaking/2007/1113/breaking51.htm>

- Fitzgerald, M. (2005). *The Genesis of Artistic Creativity: Asperger's Syndrome and the Arts*. London: Jessica Kingsley Publishers.
- Fox, S. & Spector, P. E. (2000). Relations of emotional intelligence, practical intelligence, general intelligence, and trait affectivity with interview outcomes: it's not all just 'g'. *Journal of Organizational Behaviour*, 21, 203-220.
- Fuqua, D. R., Rathburn, M., & Gade, E. M. (1984). A comparison of employer attitudes toward the worker problems of eight types of disabilities. *Vocational Evaluation and Work Adjustment Bulletin*, 15, 40-43.
- Gade, E. & Toutages, G. (1983). Employers' attitudes towards hiring epileptics: Implications for job placement. *Rehabilitation Counseling Bulletin*, 26, 353-356.
- Gardner, H. (1983). *Frames of Mind: The Theory of Multiple Intelligences*. New York: Basic Books.
- Gardner, H. (1999). *Intelligence Reframed: Multiple Intelligences for the 21st Century*. New York: Basic Books.
- Garrett, H. E. (1946). A developmental theory of intelligence. *The American Psychologist*, 1, 372-378.
- Geary, D.C. (2005). *The Origin of Mind: Evolution of Brain Cognition and General Intelligence*. Washington, D.C.: American Psychological Association.
- Gillberg, C. (2002). *A Guide to Asperger Syndrome*. Cambridge: University Press.
- Gilmore, D. C. & Ferris, G. R. (1989). The effects of applicant impression management tactics on interviewer judgements. *Journal of Management*, 15, 557-564.
- Goleman, D. (1995). *Emotional Intelligence*. New York: Bantam Books.

- Goode, S., Rutter, M., & Howlin, P. (1994). *A Twenty Year Follow-up of Children with Autism*. Paper presented at the 13th biennial meeting of the International Society for the Study of Behavioural Develo~~p~~ment.
- Graduate Careers Ireland & GTI Ireland. (2008). *The Official Careers Directory for Students and Graduates in Ireland* (18<sup>th</sup> ed). Dublin: GTI Specialist Publishers.
- Gregory, R. (1987). *Oxford Companion to the Mind*. Oxford: Oxford University Press.
- Gunnigle, P., Heraty, N. & Morley, M., J. (2006). *Human Resource Management in Ireland* (3rd ed.). Dublin: Gill & Macmillan.
- Haddon, M. (2003). *The Curious Incident of the Dog in the Night-time*. London: Jonathan Cape.
- Health Service Employers Agency. (2001). *Guidelines on the Development of a Code of Practice for the Employment of People with Disabilities in the Health Services*. Dublin: Health Service Employers Agency.
- Herrnstein, R. J. & Murray, C. (1994). *The Bell Curve*. New York: Free Press.
- Howlin, P. & Mawhood, L. (1996). *An Evaluation of a Pilot Two-Year Supported Employment Service for People with Autism*. London: The National Autistic Society.
- Howlin, P. (2000). Outcome in adult life for more able individuals with autism and Asperger Syndrome. *Autism: The International Journal of Research and Practice*, 4, 63-83.
- Howlin, P., Goode, S., Hutton, J. & Rutter, M. (2004). Adult outcome for children with autism. *Journal of Child Psychology and Psychiatry, and Applied Disciplines*, 45, 212-229.

- Howlings, J. (1996). Staff Recruitment: Your Rights and Obligations. *People Management*, 2, 47-48.
- Huffcutt, A. I., Conway, J. M., Roth, P. L. & Stone, N. J. (2001). Identification and meta-analytic assessment of psychological constructs measured in employment interviews. *Journal of Applied Psychology*, 83, 179-189.
- Hurlbutt, K. & Chalmers, L. (2004). Employment and Adults with Asperger Syndrome. . *Focus on Autism and Other Developmental Disabilities*, 19, 215-222.
- Iles, P.A. & Robertson, I.T. (1997). The impact of personnel selection procedures on candidates. In N. Anderson & P. Herriot (Eds), *International Handbook of Selection and Assessment*. Chichester: Wiley.
- Johnson, M. (2005). *Managing with Asperger Syndrome*. London: Jessica Kinglsey Publishers.
- Johnson, V. A., Greenwood, R. & Schriener, K. F. (1988). Work performance and work personality: Employer concerns about workers with disabilities. *Rehabilitation Counseling Bulletin*, 32, 50-57.
- Judge, T. & Ferris, G. (1994). The elusive criterion of fit in human resources staffing decisions. *Human Resource Planning*, 15, 47-66
- Kalat, J. W. (2005). *Introduction to Psychology*. California: Wadsworth Thomson Publishing.
- Kamphaus, R.W. (2005). *Clinical Assessment of Child and Adolescent Intelligence*. New York: Springer Publishing.
- Kemp Jr., E. J. (1991). Disability in our Society. In C. L. Weaver (Ed.), *Disability and Work: Incentives, Rights and Opportunities* (pp. 56-60). Washington, DC: AEI Press.
- Kregel, J. & Tomiyasu, Y. (1994). Employers' attitudes toward workers with disabilities *Journal*

*of Vocational Rehabilitation, 4, 165-173.*

Latham, G., P. & Skarlicki, D., P. (1995). Critereon-related validity of the situational and patterned behaviour description interviews with organisational citizenship behaviour. *Human Performance, 8, 67-80.*

Maslow, A. (1943). A theory of human motivation. *Psychological Review, 50, 370-396*

Mayer, J. D. & Salovey, P. (1993). The intelligence of emotional intelligence. *Intelligence, 17, 433-442.*

Mayer, J. D. & Salovey, P. (1995). Emotional intelligence and the construction and regulation of feelings. *Applied and Preventive Psychology, 4, 197-208.*

McMahon, G. V. (2001, January 22). Ignorance of law relating to recruitment is frightening. *The Irish Times, p. 19.*

McMahon, G. V. (2002). *Recruitment and Selection: How to get it Right.* Dublin, Ireland: Oak Tree Press.

Meyer, R. N. (2001). *Asperger Syndrome Employment Workbook.* London: Jessica Kingsley Publisers Ltd.

Minksoff, E. H., Sautter, S. W., Hoffman, F. J. & Hawks, R. (1987). Employer attitudes toward hiring the learning disabled. *Journal of Learning Disabilities, 20, 53-57.*

Morgeson, F. P. & Campion, M. A. (1997). Social and cognitive sources of potential inaccuracy in job analysis. *Journal of Applied Psychology, 82, 627-655.*

Morton, K. S. (1994). A schema model of dispositional attribution in the employment selection process. *Dissertation Abstracts International, 55, 1031.*

- Muller, E., Schuler, A. & Yates, G.B. (2008). Social challenges and supports from perspective of individuals with Asperger syndrome and other autism spectrum disabilities. *Journal of Autism and Developmental Disorders*, 38, 353-361.
- Myles, B. S. & Simpson, R. L. (1998). *Asperger Syndrome: A Guide for Educators and Parents*. Austin: PRO-ED.
- National Disability Authority. (2003). *Review of Access to Mental Health Services for People with Intellectual Disabilities*. Retrieved. from <http://www.nda.ie/cntmgmtNew.nsf/0/815EB07591494D9D80256F62005E6964?OpenDocument#fn2>.
- Neisser, U., Boodoo, G., Bouchard, T. J., Boykin, A. W., Brody, N., Ceci, S. J., et al. (1996). Intelligence: Knowns and Unknowns [Electronic Version]. Retrieved October 31, 2007 from [http://www.lrainc.com/swtaboo/taboo/apa\\_01.html](http://www.lrainc.com/swtaboo/taboo/apa_01.html).
- Nesbitt, S. (2000). Why and why not? Factors influencing employment for individuals with Asperger syndrome. *Autism*, 4, 357-369.
- Organisation for Economic Co-operation and Development. (2003). *Education at a Glance*. OECD Publishing.
- Palmer, A. & Hartley, B. (2002). *The Business Environment*. London: McGraw-Hill.
- Peterson, C., Ruch, W., Beerman, U., Park, N. & Seligman, M. E. P. (2007). Strengths of character, orientations to happiness and life satisfaction. *Journal of Positive Psychology*, 2, 149-156.
- Posthuma, R. A., Morgeson, F. P. & Campion, M. A. (2002). Beyond employment interview

validity: A comprehensive narrative review of recent research and trends over time. *Personnel Psychology*, 55, 1-81.

Renty, J. O. & Roeyers, H. (2006). Quality of life in high-functioning adults with autism spectrum disorder: The predicitive value of disability and support characteristics. *Autism*, 10, 511-524.

Rhimes, S. (Executive Producer.) (2008). *Grey's Anatomy*. [Television Series]. New York: American Broadcasting Company.

Robson, C. (2002). *Real World Research*. Oxford: Blackwell Publishing.

Rodden, M. (2007, June 9). 'Barriers' remain for those with disabilities. *The Irish Times*, p. 5.

Rynes, S., L. & Gerhart, B. (1990). Interviewer assessments of applicant "fit": An exploratory investigation. *Personnel Psychology*, 43, 13-35.

Salovey, P. & Mayer, J. D. (1990). Emotional intelligence. *Imagination, Cognition and Personality*, 9, 185-211.

Schalock, R. L. (2004). The concept of quality of life: What we know and do not know. *Journal of Intellectual Disability Research*, 48, 203-216.

Schmidt, F. L. & Hunter, J. E. (1981). Employment testing: old theories and new research findings. *American Psychologist*, 36, 1128-1137.

Schmitt, N. (1976). Social and situational determinants of interview decisions: Implications for the employment interview. *Personnel Psychology*, 29, 79-101.

Schneider, E. (1999). *Discovering My Autism: Apologia Pro Vita Sua (with Apologies to Cardinal Newman)* London: Jessica Kingsley.

- Schneider, W. & Shiffrin, R. M. (1977). Controlled and automatic human information processing: I. Detection, search and attention. *Psychological Review*, 84, 1-66.
- Siperstein, G. N., Norins, J., Corbin, S. & Shriver, T. (2003). Multinational study of attitudes toward individuals with intellectual disabilities. [Electronic Version]. *Special Olympics*. Retrieved September 19, 2007 from <http://www.specialolympics.org/Special+Olympics+Public+Website/English/Initiatives/Research/AttitudeResearch/Multinational+Study.htm>.
- Smith, M., Belcher, R. G. & Juhrs, P. D. (1995). *A Guide to Successful Employment for Individuals with Autism*. Baltimore, Maryland: Paul H. Brookes.
- Spearman, C. (1904). "General intelligence," objectively determined and measured. In N. R. Carlson, W. Buskist (Ed.), *Psychology: the Science of Behaviour* (pp. 75-76). Boston: Allyn and Bacon.
- Sternberg, R. J. (1982). *The Handbook of Human Intelligence*. Cambridge: University Press.
- Sternberg, R. J. (1985). *Beyond IQ: A Triarchic Theory of Human Intelligence*. New York: Cambridge University Press.
- Sternberg, R. J. (2003). Intelligence: Can one have too much of a good thing? In E. C. Chang & L. J. Sanna (Eds.), *Virtue, vice, and personality: The complexity of behavior* (pp. 39-51). Washington, DC: American Psychological Association.
- Sternberg, R. J., Conway, B. E., Ketron, J. L. & Bernstein, M. (1981). People's conceptions of intelligence. *Journal of Personality and Social Psychology*, 41, 37-55.
- Sternberg, R. J. & Detterman, D. K. (1986). *What is Intelligence?* Norwood, New Jersey: Ablex
- Sternberg, R. J. & Wagner, R. K. (1993). The g-centric view of intelligence and job

performance is wrong. *Current Directions in Psychological Science*, 2, 1-5.

Stross, R. E. (1996). Microsoft's big advantage- hiring only the supersmart. *Fortune*, 134, 158-162.

Tatum, B. D. (1997). *Why Are All the Black Kids Sitting Together in the Cafeteria? And Other Conversations About Race*. New York: BasicBooks.

Tsatsanis, K. (2003). Outcome research in Asperger syndrome and autism. *Child and Adolescent Psychiatric Clinics of North America*, 12, 47-63.

Tse, J. (1994). Employers' expectations and evaluation of the job performance of employees with intellectual disability. *Australia & New Zealand Journal of Developmental Disabilities*, 19, 139-147.

Unger, D. D. (2002). Employers' Attitudes Toward Persons with Disabilities in the Workforce: Myths or Realities? *Focus on Autism and Other Developmental Disabilities*, 1, 2-10.

Walker, A. & Fitzgerald, M. (2006). *Unstoppable Brilliance: Irish Geniuses and Asperger's Syndrome*. Dublin: Liberties Press.

Walters, J. & Gardner, H. (1985). The developmental and education of intelligences. In F. Link (Ed.), *Essays on Intellect*. (pp.1-21) Washington, DC: Curriculum Development Association/Association for Supervision and Curriculum Development.

Williams, R. L. (1972). *The BITCH-100: A Culture-Specific Test*. Paper presented at the American Psychological Association Annual Convention.

Wing, L. (1981). Asperger's syndrome- A clinical account. *Psychological Medicine*, 11, 115-129.

Wittenbrink, B., Gist, P. L. & Hilton, J. L. (1993, June). *The perceiver as alchemist:*

*Conceptualizing stereotypes as theories.* Paper presented at the annual convention of the American Psychological Society.

## **Appendices**

Appendix A: Questionnaire for the Case Study- Respondents with Asperger's Syndrome

Appendix B: Questionnaire for Case Study- Respondents who are Employers

Appendix C: Questionnaire for Case Study- Respondents who are Job Coaches

Appendix D: Consent Form for Case Study

Appendix E: Identifying Desirable Characteristics in Candidates Questionnaire (Study 2)

Appendix F: Consent Form for Study 2

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Appendix H: Demographic Questionnaire for Study 3

Appendix I: Sternberg's Implicit Theories of Intelligence Inventory (SITII) (Study 3)

Appendix J: Emotional Intelligence Inventory (EII) (Study 3)

Appendix K: Study 3 Condition One- Description of a Candidate with Asperger's Syndrome and Confirmation of the Syndrome in the Candidate

Appendix L: Study 3 Condition Two- Description of a Candidate with Asperger's Syndrome with No Confirmation of the Syndrome in the Candidate

Appendix M: Consent Form for Study 3

Appendix N: First Contact Correspondence for Study 3

Appendix O: Link to Questionnaire for Study 3

Appendix P: Final Contact / Reminder for Study 3

Appendix Q: Thank You Note for Study 3

Appendix R: Participant Debrief for Study 3

## **Appendix A: Questionnaire for the Case Study- Respondents with Asperger's Syndrome**

1. Gender and age:
2. What kind of issues do people with A.S. have in the workplace?
3. What advantages do people with A.S. have over other people in the workplace?
4. What qualifications do you have?
5. Give a brief description of the types of jobs you've held
6. What did you like about your previous jobs?
7. What did you not like about your previous jobs?
8. Should individuals with A.S. inform employers about their condition?
9. Do employers generally ask questions about A.S.?
10. Do they give explanations as to why these are being asked?
11. How does A.S. affect job interviews?
12. How does A.S. affect communication with interviewer?
13. How does someone overcome communication problems?
14. Do interviewers' preconceptions about A.S. affect the chances of someone with A.S. getting a job?
15. What kinds of preconceptions exist?

## **Appendix B: Questionnaire for Case Study- Respondents who are Employers**

1. Gender and age:
2. Please give a brief description of your job, including your job title:
3. Would your organisation/branch be described as small (10-99 employees), medium (100-400) or large (500+)?
4. How do you think the size of an organisation or branch would affect an employee with Asperger Syndrome (A.S.)?
5. What kinds of issues arise with individuals with A.S. in the workplace?
6. What did you know about A.S. before working with individuals with A.S.?
7. Please give details of any training you received regarding working with A.S. employees:
8. How important are a candidate's social skills to you? (With regard to teamwork and after work socialising)
9. What aspects of job performance do individuals with A.S. perform more favourably than their colleagues?
10. What aspects of job performance do individuals with A.S. perform less favourably than their colleagues?
11. During the interview did you notice any behavioural differences between A.S. candidates and neurotypical candidates? (neurotypical refers to individuals without AS or autism)
12. What aspects of the job interview do individuals with A.S. perform more favourably than neurotypical candidates?
13. What aspects of the job interview do individuals with A.S. perform less favourably than neurotypical candidates?

**Appendix C: Questionnaire for Case Study- Respondents who are Job Coaches**

1. Gender and age:
2. Briefly describe your duties as a job coach
3. What kind of issues do people with A.S. have in the workplace?
4. What aspects of job performance do individuals with A.S. perform more favourably than their colleagues?
5. What aspects of job performance do individuals with A.S. perform at a similar level to their colleagues?
6. What aspects of job performance do individuals with A.S. perform less favourably than their colleagues?
7. Do employers receive any training regarding working with individuals with A.S.?
8. Do employers generally ask questions about A.S. to the individual or the job coach?
9. Do these questions indicate a willingness to learn about A.S.?
10. Do interviewers' preconceptions about A.S. affect the chances of someone with A.S. getting a job?
11. What kinds of preconceptions exist?
12. How does A.S. affect job interviews?
13. How does A.S. affect communication with interviewer?
14. How does someone with A.S. overcome communication problems (specifically for the workplace)

## **Appendix D: Consent Form for Case Study**

Dear participant,

My name is Lisa Gorry and I am a postgraduate student in Dun Laoghaire Institute of Art Design and Technology (IADT). I am researching employers' implicit theories of intelligence in the recruitment of individuals with asperger's syndrome (A.S.). For the initial phase of this study, I will be compiling case studies. These are details of individuals with A.S. in the workplace and employers who have worked with individuals with A.S.

All data obtained will be treated with full anonymity and confidentiality and will not be identifiable if published. You are free to decline to answer any question, and are free to withdraw from the study at any time and all corresponding data will be destroyed. The welfare of participants is of the utmost importance to me and my supervisors.

For employers: The researcher is required to report any incidents of discrimination that may be revealed in the study. It is not the aim of the researcher to obtain such admissions. The researcher has designed the questions so that you will not be asked if you have discriminated against job candidates. If you have discriminated against candidates, do not disclose this information.

I would be most grateful if you would consider taking part in this study. If you have any questions regarding this study, please do not hesitate to contact me. My email address is [lisa.gorry@iadt.ie](mailto:lisa.gorry@iadt.ie). Alternatively, if you wish to contact my supervisors, you can contact Dr Tim McNichols at [tim.mcnichols@iadt.ie](mailto:tim.mcnichols@iadt.ie) or Dr Grainne Kirwan at [grainne.kirwan@iadt.ie](mailto:grainne.kirwan@iadt.ie).

If the study has affected you in any way, please contact the Aspire (Asperger Association of Ireland) Helpline on 01-8780027 or visit [www.aspire-irl.org/support.htm](http://www.aspire-irl.org/support.htm) to locate your nearest Asperger's Support Group.

.....  
 I have read the above information and agree to participate in this research. I understand that I am free to withdraw from the study at any time and that I will not be identifiable in the study from its findings.

**Appendix E: Identifying Desirable Characteristics in Candidates**  
**Questionnaire (Study 2)**

## **Introduction**

Thanks for helping with this survey on employers' ideal characteristics in employees and the selection processes used in recruitment. You are part of a carefully selected sample that has been asked to assist with this survey, and I appreciate your assistance. Your responses are confidential. Should you have any difficulties in responding please email me at [lisa.gorry@iadt.ie](mailto:lisa.gorry@iadt.ie) or call (01) 2144932

1. Please enter your PIN number that we sent you in the box provided

## Part 1- Background Information

### 1. Gender

- Male
- Female

### 2. Age category

- 18-33
- 34-49
- 50-64
- 65+

### 3. What is your role in the organisation? (Please tick as many as applicable)

- General Manager
- Human Resource Manager
- Human Resource Personnel
- Administrative Assistant

Other (please specify)

---

### 4. What aspect(s) of the recruitment process are you personally involved in? (Please tick as many as applicable)

- Screening C.V.'s
- Screening of letters of application
- Interviewer
- Checking interviewer notes
- Contacting referees
- Checking correspondence with referee

Other (please specify)/ Comment

---

**5. What is the initial phase for screening employees in your organisation/department?**

C.V./ Application form

Interview

Other (please specify)

---

**6. What is the importance of the interview in your organisation/department?**

Unimportant

Of Little  
Importance

Moderately  
important

Important

Very important

**7. Within the last 6 months, were all employees hired by your organisation/department interviewed during the recruitment process?**

Yes

No

**8. On average, how many interviews would a candidate have before a final decision regarding recruitment is made?**

1

2

3

4+

**9. As an employer, how do you think the interview compares to other types of selection methods in recruitment?**

	<i>Worse than interviews</i>	<i>Better than interviews</i>	<i>Don't know</i>
Assessment centres	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Work samples	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ability tests	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Biodata	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Personality tests	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
References	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Astrology	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Graphology	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**10. In your opinion:**

**What advantages do employees have in taking part in an interview as opposed to being screened by any of the methods mentioned above?**

**11. What are the disadvantages?**

**12. In your experience:**

**What are the 3 most important characteristics in a candidate for your organisation?**

1

2

3

**13. What characteristics in a person would make them an unsuitable for a position in your organisation?**

## Part 2- Ranking of Personas

Described below are two potential candidates for a position in your organization. Please read their descriptions, and answer the questions that follow.

### *Candidate 1*

- o Holds two master's degrees, one in Science and the other in Engineering.
- o Currently works as an information specialist at a university.
- o Highly dependable
- o Highly focused knowledge, including publishing several articles
- o Previous employers have noted that the candidate does not interact socially with co-workers
- o Has difficulty carrying out multiple tasks simultaneously

### *Candidate 2*

- o Holds two master's degrees, one in Science and the other in Engineering.
- o Currently works as an information specialist at a university.
- o Has obtained an award from previous employer for managing a large workload
- o Easily distracted
- o Previous employers noted that the candidate is not always punctual
- o Chair of the social committee in a previous organization

**1. Which candidate would you be more likely to hire?**

- Candidate 1
- Candidate 2

**Why?**

**2. Which candidate would you consider to be the most intelligent?**

Candidate 1

Candidate 2

**Why?**

\_\_\_\_\_

|

### **Part 3- Recruitment of People with Asperger Syndrome**

Title of Study: Employers' Implicit Theories of Intelligence in the Recruitment of Individuals with Asperger's Syndrome: Identifying Desirable Characteristics in Candidates

Thank you for taking part in this study. The aims of this study are to determine employers' ideal characteristics in employees, and to investigate employers' selection of candidates when presented with two individuals- one displaying symptoms of Asperger's Syndrome traits and the other displaying traits of a typical person.

Asperger Syndrome is a pervasive developmental disorder. In adults, it is characterized by difficulties in understanding social rules or customs, non-verbal cues such as body language, reciprocating social interactions, and problems understanding and interpreting interpersonal and intrapersonal feelings. They are also highly dependable, committed to work, often have highly-focused knowledge and have a very strong moral code (Atwood, 1998).

Individuals with Asperger Syndrome are quite capable of completing third level degrees, but often find it difficult to obtain jobs in the fields which they have been trained. Job interviews can be especially difficult for individuals with Asperger Syndrome. They may find themselves more anxious than the average person, as they are often aware of the deficits in their social interactions that can affect their employability but are often unable to change their behavior (Hurlbutt & Chambers, 2004).

**1. What do you think the advantages of employing a person with Asperger Syndrome are?**

---

**2. What do you think the disadvantages are?**

---

### **Thank you for taking part in my study**

If you would like any information about the results of the study once it is completed, or if you have any questions or queries about the study, please feel free to contact me. Tel. +353 (1) 2144932. email: [lisa.gorry@iadt.ie](mailto:lisa.gorry@iadt.ie).

Alternatively, if you wish to contact my supervisors, you can contact Dr Tim McNichols at [tim.mcnichols@iadt.ie](mailto:tim.mcnichols@iadt.ie) or Dr Grainne Kirwan at [grainne.kirwan@iadt.ie](mailto:grainne.kirwan@iadt.ie).

If the study has affected you in any way, please contact the Aspire (Asperger Association of Ireland) Helpline on 01-8780027 or visit [www.aspire-irl.org/support.htm](http://www.aspire-irl.org/support.htm) to locate your nearest Asperger's Support Group.

## **Appendix F: Consent Form for Study 2**

Dear participant,

My name is Lisa Gorry and I am a postgraduate student in Dun Laoghaire Institute of Art Design and Technology (IADT). I am researching aspects of recruitment in the fields of I.T., science, and engineering. Your participation will take approximately 10 minutes.

All data obtained will be treated with full anonymity and confidentiality and no individual participant will be identifiable if published. You are free to decline to answer any question, and are free to withdraw from the study at any time and all corresponding data will be destroyed. The welfare of participants is of the utmost importance to me and my supervisors.

The researcher is required to report any incidents of discrimination that may be revealed in the study. It is not the aim of the researcher to obtain such admissions. The researcher has designed the questions so that you will not be asked if you have discriminated against job candidates. Please do not disclose any information about any discrimination you may have made.

If you have any questions regarding this study, please do not hesitate to contact me. My email address is [lisa.gorry@iadt.ie](mailto:lisa.gorry@iadt.ie). Alternatively, if you wish to contact my supervisors, you can contact Dr Tim McNichols at [tim.mcnichols@iadt.ie](mailto:tim.mcnichols@iadt.ie) or Dr Grainne Kirwan at [grainne.kirwan@iadt.ie](mailto:grainne.kirwan@iadt.ie).

I have read the above information and agree to participate in this research. I understand that I am free to withdraw from the study at any time and that I will not be identifiable in the study from its findings.

## Appendix G: Correspondence for Study 2

### **Pre-notice**

Dear X,

A few days from now you will receive by email a request to complete a brief online questionnaire for an important research project being carried out at the Institute of Art, Design and Technology in Dun Laoghaire.

The study concerns employers' ideal characteristics in employees and the selection processes used in recruitment.

I am writing to you in advance because we have found many people like to know ahead of time that they will be contacted. The study is an important one that will help job candidates to better prepare themselves for the recruitment process.

If you have any questions, feel free to contact me at (01) 2144932 or by email at [lisa.gorry@iadt.ie](mailto:lisa.gorry@iadt.ie)

Thank you for your time and consideration. It's only with the generous help of people like you that my research can be successful.

Sincerely,

Lisa M. Gorry

School of Creative Technologies, IADT

## Cover Letter

Dear X,

I am writing to ask your help in a study of employers being conducted in IADT. The study is part of an effort to learn about the characteristics employers seek in employees and the selection processes used in recruitment in the areas of information technology, science and engineering. The study is funded under the Technological Sector Research Grant Scheme.

It's my understanding that you are involved in the recruitment process, where your recommendations result in a job candidate being employed or rejected. I am contacting a sample of employers in the IT, science and engineering sector to ask about the prominence of the job interview in this sector and its advantages and disadvantages.

Results from the study will be used to give job candidates a better understanding of what employers expect of them in a job interview. Giving job candidates an understanding of what employers expect in job interviews allows for the candidates to work on improving their performances. Thus, candidates whose qualifications or experience may previously have been overlooked due to factors in the interview process have a better chance of a positive interview experience.

Your answers are completely confidential. No individual's answers will be identifiable if published. When you have completed the questionnaire, your name will be deleted from the mailing list and never connected to your answers in any way. This survey is voluntary. However, you can help us very much by taking a few minutes to share your experiences and opinions with us.

If you would like to take part in this survey, please enter your PIN number into the first page on the link below, and follow the prompts

PIN XXX

Link [http://www.surveymonkey.com/s.aspx?sm=3TW2NpUvSobfLEMnAkhVUg\\_3d\\_3d](http://www.surveymonkey.com/s.aspx?sm=3TW2NpUvSobfLEMnAkhVUg_3d_3d)

If for some reason you prefer not to respond, please let us know by replying to this email, and your address will be taken off our mailing list.

If you have any questions or comments about this study, I would be happy to talk with you. Please feel free to contact me at (01) 2144932 or by email at [lisa.gorry@iadt.ie](mailto:lisa.gorry@iadt.ie).

Thank you very much for helping with this important study.

Sincerely,

Lisa M. Gorry

School of Creative Technologies, IADT

**Final notice**

Dear X,

Last week a link to an online survey about employers' ideal characteristics in employees and the selection processes used in recruitment was emailed to you. Your name and contact details were found through an internet search and you were contacted because it appears that you have the knowledge and expertise needed for this study.

If you have already completed the questionnaire, please accept my sincere thanks. If not, please do so today. I am especially grateful for your help because it is only by asking people like you to share your experiences that my research can be successful.

If you did not receive a link, or have since deleted it, another link is provided below. Please enter your PIN number into the first page on the link below, and follow the prompts

PIN XXX

Link [http://www.surveymonkey.com/s.aspx?sm=3TW2NpUvSobfLEMnAkhVUg\\_3d\\_3d](http://www.surveymonkey.com/s.aspx?sm=3TW2NpUvSobfLEMnAkhVUg_3d_3d)

Kind regards,

Lisa M. Gorry

School of Creative Technologies, IADT

## **Appendix H: Demographic Questionnaire for Study 3**

### **1. Gender**

- Male
- Female

### **2. Age category**

- 18-33
- 34-49
- 50-64
- 65+

### **3. Which of the following categories does your organisation fall into?**

- Micro (1-9)
- Small (10-99 employees)
- Medium (100-499 employees)
- Large (500+ employees)

### **4. What is your role in your organisation? (Please tick as many as applicable)**

- Management
- Human Resources
- Administrator

Other (please specify)

---

### **5. What aspect(s) of the recruitment process are you personally involved in? (Please tick as many as applicable)**

- Screening C.V.'s

Screening of letters of application

Interviewer

Checking interviewer notes

Contacting referees

Checking correspondence with referee

Other (please specify)/ Comment

---

## Appendix I: Sternberg's Implicit Theories of Intelligence Inventory

### (SITII) (Study 3)

Rate the importance of the following factors in determining an employee's intelligence:

**1. An intelligent person:**

	Very important	Somewhat important	Of little importance	Not important at all
Tends to see attainable goals and accomplish them	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Acts within own physical and intellectual limitations and knows them	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is good at distinguishing between correct and incorrect answers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Has good problem-solving ability	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Has ability to change directions and use another procedure	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Has rationality: ability to reason clearly	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Able to apply knowledge to particular problems	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Has the unique ability to look at a problem or situation and solve it	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Has a logical mind	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Can converse on almost any topic	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Attaches importance to ideas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is inquisitive	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Studies and reads quite a lot	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Has demonstrated a good vocabulary	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Expresses broad concepts concisely	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Has a good command of language	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Has a huge store of information	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Attaches importance to well-presented ideas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Has the ability to recognize similarities and differences	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Makes connections and distinctions between ideas and things	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Listens to all sides of an issue	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is able to grasp abstract ideas and focus his or her attention on those ideas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is able to see through things—read between the lines	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is perceptive	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Has the ability to integrate information	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Has the ability to grasp complex situations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tends to obtain and use information for specific purposes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Possesses ability for high achievement	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Seeks out information, especially details	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is motivated by goals	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is inquisitive at an early age	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sees opportunities and knows when to take them	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Learns and remembers and gains information from past mistakes or successes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Has the ability to understand and interpret his or her environment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Knows what's going on in the world	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Has a thorough grasp of mathematics, or good spatial ability, or both	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Has a high IQ level	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Thinks quickly	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### **Appendix J: Emotional Intelligence Inventory (EII) (Study 3)**

**Rate the importance of the following factors in determining an employee's intelligence:**

	Very important	Somewhat important	Of little importance	Not important at all
Ability to cooperate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Capacity to communicate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Citizenship	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Confidence	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Conflict resolution	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Coping skills	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Curiosity	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Empathy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Health promotion	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Life skills	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Managing relationships	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mood management	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Negotiation skills	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Problem prevention skills	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Self awareness	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Self-control	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Self motivation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Service skills	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Social competencies	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Workplace skills	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Appendix K: Study 3 Condition One- Description of a Candidate with  
Asperger's Syndrome and Confirmation of the Syndrome in the  
Candidate**

Described below is a potential candidate for a position in your organisation. Please read the descriptions, and answer the questions that follow.

Candidate 1

Holds two bachelor's degrees, one in Computer Science and the other in Physics, and a Master's degree in Engineering

Previous jobs include analysis, development and implementation of computer systems

The candidate found previous jobs to be interesting, rewarding and stimulating

Previous employers have noted that the candidate:

- has an extraordinary short term memory and unique modes of thinking
- is sensitive to light and noise and requires a quiet workstation where the lighting can be easily manipulated
- is loyal, honest, and dedicated
- has difficulty carrying out tasks simultaneously
- has highly focused specialized knowledge in the field
- does not interact socially with co-workers

Job Interview Notes

Candidate 1's first interview with the organisation was a one-to-one interview with the human resource manager. This exchange assessed the candidate's suitability for the organisation. The interviewer was impressed by the candidate 1's performance in the interview. The candidate spoke at great length about previous jobs and interests. It was clear to the human resource manager that the candidate has highly focused specialized knowledge and a keen interest in the field of work. Candidate 1 spoke for so long about the field of work that the interview ran over the allocated time. The human resource manager felt that candidate 1 was one of the top three candidates for the position and

recommended that candidate 1 be put forward for the next stage interviews (the panel interview).

The panel consisted of the same human resource manager, the head of department and a manager from the department. Two additional candidates were interviewed by the panel at the same time as candidate 1. The human resource manager was surprised by candidate 1's performance in the interview. Candidate 1 seemed tense, anxious and introverted. The panel found that conversation with candidate 1 did not flow as well as with the other candidates. Candidate 1 performed especially poorly compared to the other candidates in situational-type questions ("If x happened, how would you feel?") While the other candidates gave thoughtful, insightful answers with ease, candidate 1 thought for a long time and could not give an answer. Candidate 1 seemed to be tense for the entire interview, while the other candidates became more at ease as the interview continued.

Please read the following passage and answer the questions that follow.

Candidate 1 has Asperger Syndrome. It is a pervasive developmental disorder. In adults, it is characterized by difficulties in understanding social rules or customs, non-verbal cues such as body language, reciprocating social interactions, and problems understanding and interpreting interpersonal and intrapersonal feelings. Individuals with Asperger Syndrome are also highly dependable, committed to work, often have highly-focused knowledge and have a very strong moral code (Atwood, 1998).

Individuals with Asperger Syndrome are quite capable of completing third level degrees, but often find it difficult to obtain jobs in the fields which they have been trained. Job interviews can be especially difficult for individuals with Asperger Syndrome. They may find themselves more anxious than the average person, as they are often aware of the deficits in their social interactions that can affect their employability but are often unable to change their behavior (Hurlbutt & Chambers, 2004).

1. Would you hire Candidate 1?

Yes

No

**Why?**

---

2. Do you consider Candidate 1 to be intelligent?

Yes

No

**Why?**

---

## **Appendix L: Study 3 Condition Two- Description of a Candidate with Asperger's Syndrome with No Confirmation of the Syndrome in the Candidate**

Described below is a potential candidate for a position in your organisation. Please read the descriptions, and answer the questions that follow.

### Candidate 1

Holds two bachelor's degrees, one in Computer Science and the other in Physics, and a Master's degree in Engineering

Previous jobs include analysis, development and implementation of computer systems

The candidate found previous jobs to be interesting, rewarding and stimulating

Previous employers have noted that the candidate:

- has an extraordinary short term memory and unique modes of thinking
- is sensitive to light and noise and requires a quiet workstation where the lighting can be easily manipulated
- is loyal, honest, and dedicated
- has difficulty carrying out tasks simultaneously
- has highly focused specialized knowledge in the field
- does not interact socially with co-workers

### Job Interview Notes

Candidate 1's first interview with the organisation was a one-to-one interview with the human resource manager. This exchange assessed the candidate's suitability for the organisation. The interviewer was impressed by the candidate 1's performance in the interview. The candidate spoke at great length about previous jobs and interests. It was clear to the human resource manager that the candidate has highly focused specialized knowledge and a keen interest in the field of work. Candidate 1 spoke for so long about the field of work that the interview ran over the allocated time. The human resource manager felt that candidate 1 was one of the top three candidates for the position and recommended that candidate 1 be put forward for the next stage interviews (the panel

interview).

The panel consisted of the same human resource manager, the head of department and a manager from the department. Two additional candidates were interviewed by the panel at the same time as candidate 1. The human resource manager was surprised by candidate 1's performance in the interview. Candidate 1 seemed tense, anxious and introverted. The panel found that conversation with candidate 1 did not flow as well as with the other candidates. Candidate 1 performed especially poorly compared to the other candidates in situational-type questions ("If x happened, how would you feel?") While the other candidates gave thoughtful, insightful answers with ease, candidate 1 thought for a long time and could not give an answer. Candidate 1 seemed to be tense for the entire interview, while the other candidates became more at ease as the interview continued.

1. Would you hire Candidate 1?

Yes

No

**Why?**

---

2. Do you consider Candidate 1 to be intelligent?

Yes

No

**Why?**

---

### **Appendix M: Consent Form Study 3**

Dear participant,

My name is Lisa Gorry and I am a postgraduate student in Dun Laoghaire Institute of Art Design and Technology (IADT). I am researching aspects of recruitment in the fields of I.T., science, and engineering. Your participation will take approximately 10 minutes.

The aims of this study are to investigate your conceptions of intelligence. All data obtained will be treated with full anonymity and confidentiality and no individual participant will be identifiable if published. You are free to decline to answer any question, and are free to withdraw from the study at any time and all corresponding data will be destroyed. The welfare of participants is of the utmost importance to me and my supervisors.

If you have any questions regarding this study, please do not hesitate to contact me. My email address is [lisa.gorry@iadt.ie](mailto:lisa.gorry@iadt.ie). Alternatively, if you wish to contact my supervisors, you can contact Dr Tim McNichols at [tim.mcnichols@iadt.ie](mailto:tim.mcnichols@iadt.ie) or Dr Grainne Kirwan at [grainne.kirwan@iadt.ie](mailto:grainne.kirwan@iadt.ie).

I have read the above information and agree to participate in this research. I understand that I am free to withdraw from the study at any time and that I will not be identifiable in the study from its findings.

## **Appendix N: Correspondence for Study 3-First Contact**

Dear X,

A few days from now you will receive by email a request to complete a brief online questionnaire for an important research project being carried out at the Institute of Art, Design and Technology in Dun Laoghaire.

The study concerns employers' conceptions of intelligence and how it affects the interview process.

I am writing to you in advance because we have found many people like to know ahead of time that they will be contacted. The study is an important one that will help job candidates to better prepare themselves for the recruitment process.

If you have any questions, feel free to contact me at (01) 2144932 or by email at [lisa.gorry@iadt.ie](mailto:lisa.gorry@iadt.ie)

Thank you for your time and consideration. It's only with the generous help of people like you that my research can be successful.

Sincerely,

Lisa M. Gorry

School of Creative Technologies, IADT

## **Appendix O: Correspondence for Study 3- Link to Questionnaire**

Dear X,

I am writing to ask your help in a study of employers being conducted in IADT. The study is part of an effort to determine what employers mean when they talk about intelligence and how this affects the interview process. The study is funded under the Technological Sector Research Grant Scheme.

It's my understanding that you are involved in the recruitment process, where your recommendations result in a job candidate being employed or rejected. I am contacting a sample of employers in the IT, science and engineering sector to ask about employers' perceptions of intelligence and how it affects the job interview.

Your answers are completely confidential. No individual's answers will be identifiable if published. When you have completed the questionnaire, your name will be deleted from the mailing list and never connected to your answers in any way. This survey is voluntary. However, you can help us very much by taking a few minutes to share your experiences and opinions with us.

If you would like to take part in this survey, please enter your PIN number into the first page on the link below, and follow the prompts

PIN XXXX

Link XXXX

If for some reason you prefer not to respond, please let us know by replying to this email, and your address will be taken off our mailing list.

If you have any questions or comments about this study, I would be happy to talk with you. Please feel free to contact me at (01) 2144932 or by email at [lisa.gorry@iadt.ie](mailto:lisa.gorry@iadt.ie). Thank you very much for helping with this important study.

Sincerely,

Lisa M. Gorry

School of Creative Technologies, IADT

## **Appendix P: Correspondence for Study 3- Final Contact / Reminder**

Dear X,

Last week a link to an online survey about employers' conceptions of intelligence and how it affects the job interview was emailed to you. Your name and contact details were found through an internet search and you were contacted because it appears that you have the knowledge and expertise needed for this study.

If you have already completed the questionnaire, please accept my sincere thanks. If not, please do so today. I am especially grateful for your help because it is only by asking people like you to share your experiences that my research can be successful.

If you did not receive a link, or have since deleted it, another link is provided below. Please enter your PIN number into the first page on the link below, and follow the prompts.

PIN XXXX

Link XXXX

Kind regards,

Lisa M. Gorry

School of Creative Technologies, IADT.

### **Appendix Q: Correspondence for Study 3- Thank You Note**

Dear X,

Please accept my sincere thanks for taking the time to complete my questionnaire. I am especially grateful for your help because it is only by asking people like you to share your experiences that my research can be successful.

Kind regards,

Lisa M. Gorry

School of Creative Technologies, IADT.

### **Appendix R: Participant Debrief for Study 3**

Title of Study: Employers' Implicit Theories of Intelligence in the Recruitment of Individuals with Asperger's Syndrome: Identifying Desirable Characteristics in Candidates.

Thank you for taking part in this study. The aims of this study are to investigate employers' conceptions of intelligence and emotional intelligence and how this affects the recruitment of individuals with Asperger Syndrome.

If you would like any information about the results of the study once it is completed, or if you have any questions or queries about the study, please feel free to contact me. Tel. +353 (1) 2144932. email: [lisa.gorry@iadt.ie](mailto:lisa.gorry@iadt.ie).

Alternatively, if you wish to contact my supervisors, you can contact Dr Tim McNichols at [tim.mcnichols@iadt.ie](mailto:tim.mcnichols@iadt.ie) or Dr Grainne Kirwan at [grainne.kirwan@iadt.ie](mailto:grainne.kirwan@iadt.ie).

If the study has affected you in any way, please contact the Aspire (Asperger Association of Ireland) Helpline on 01-8780027 or visit [www.aspire-irl.org/support.htm](http://www.aspire-irl.org/support.htm) to locate your nearest Asperger's Support Group.

